CCGS W.E. Ricker Gulf of Alaska Salmon Survey, February 13-28, 2004

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CCGS W. E. RICKER GULF OF ALASKA SALMON SURVEY, FEBRUARY 13-28, 2004

by

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ABSTRACT

Morris, J. F. T., Trudel, M., Welch, D. W., Thiess, M. E., Zubkowski, T. B., and MacLean, H. R. 2007. *CCGS W.E. Ricker* Gulf of Alaska salmon survey, February 13-28, 2004. Can. Data Rep. Fish. Aquat. Sci. 1193: 47 p.

The Highseas Salmon program of Fisheries and Oceans Canada conducted a survey of Pacific salmon in the Gulf of Alaska from February 13-28, 2004. The objectives of the survey were to (1) evaluate the distribution and ecology of juvenile Pacific salmon (*Oncorhynchus spp.*) during their first year in the ocean, (2) describe the ambient oceanographic conditions, and (3) quantify the biomass of zooplankton, an important prey for Pacific salmon at sea. Fish, oceanographic, and zooplankton sampling was conducted at stations spanning the area from Barkley Sound on the west coast of Vancouver Island in British Columbia (48.86° N) to Sumner Strait in Southeast Alaska (56.46 ° N).

A total of 429 Pacific salmon were caught on this survey. Of these, 80 were juvenile chum salmon (*O. keta*) (age 0.1), 8 were juvenile sockeye salmon (*O. nerka*) (age X.1) and 92 were juvenile coho (*O. kisutch*) (age X.1) in their first winter in the ocean, and 237 were juvenile chinook salmon (*O. tshawytscha*) under 350 mm in fork length. No juvenile pink (*O. gorbuscha*) (age 0.1) were caught. Juvenile chum and coho were caught primarily in Quatsino Sound on the west coast of Vancouver Island. Juvenile chinook from 100-199 mm in fork length, that were mostly age 0.1, ocean ecotypes, were caught exclusively on the shelf and within the inlets on west coast of Vancouver Island. In contrast, juvenile chinook from 200-299 mm were caught primarily both on the west coast of Vancouver Island and in Sumner Strait in Southeast Alaska. Most of the juvenile chinook from 200-299 mm in Sumner Strait were age 1.1 stream ecotypes from the Stikine River, based both on CWT recoveries and DNA stock identification analyses on samples taken from this program's winter surveys from 2001 to 2006.

RESUME

Morris, J. F. T., Trudel, M., Welch, D. W., Thiess, M. E., Zubkowski, T. B., and MacLean, H. R. 2007. Campagne d'évaluation des saumons dans le Golfe de l'Alaska à bord du *CCGS W.E. Ricker* entre le 13 février et le 28 février 2004. Can. Data Rep. Fish. Aquat. Sci. 1193: 47 p.

Le programme canadien des Saumons en Haute Mer de Pêches de Océans Canada a réalisé une étude sur les saumons du Pacifique dans le Golfe de l'Alaska du 13 au 28 février 2004. Les objectifs de cette étude était de (1) évaluer la distribution et l'écologie des saumons du Pacifique (*Oncorhynchus* spp.) juvéniles durant leur première année en mer, (2) décrire les conditions océanographiques ambiantes, et (3) quantifier la biomasse de zooplancton. Nous avons mesuré les conditions océanographiques et échantillonné le zooplancton et les poissons à des stations situées entre le détroit de Barkley sur la côte ouest de l'Île de Vancouver (48.86° N) et le détroit de Sumner dans le sud-est de l'Alaska (56.46° N).

En tout, 429 saumons du Pacifique ont été capturés durant cette étude, incluant : 80 saumons kétas (*O. keta*) juvéniles (âge 0.1), 8 saumons rouges (*O. nerka*) juvéniles (âge X.1), 92 saumons coho (*O. kisutch*) juvéniles durant leur premier hiver en mer (âge X.1), et 237 saumons quinnats (*O. tshawytscha*) ayant une longueur à la fourche inférieure à 350 mm. Aucun saumon rose (*O. gorbuscha*) juvénile (âge 0.1) n'a été capturé. Les saumons juvéniles kétas et cohos ont principalement été capturés dans le Fjord de Quatsino sur la côte ouest de l'Île de Vancouver. Les saumons quinnats juvéniles ayant une longueur à la fourche entre 100 et 199 mm et qui sont probablement de type océanique (âge 0.1), ont été capturés exclusivement sur le plateau continental et dans les goulets de la côte ouest de l'Île de Vancouver. Par contre, les saumons quinnats juvéniles ayant une longueur à la fourche entre 200 et 299 mm ont été capturés sur la côte ouest de l'Île de Vancouver et ainsi que dans le détroit de Sumner dans le sud-est de l'Alaska. La plupart des saumons quinnats capturés dans le détroit de Sumner sont de type riverain (âge 0.1). Selon les captures de saumons quinnats marqués à l'aide de CWT et les tests d'ADN effectués sur des spécimens capturés dans cette région durant l'hiver entre 2001 et 2006, ces saumons proviendraient de la rivière Stikine.

INTRODUCTION

The Highseas Program of Fisheries and Oceans Canada has conducted annual Pacific salmon surveys in the Gulf of Alaska since 1995 [1-27]. The main objectives of these surveys were to collect information on (1) the distribution and ecology of Pacific salmon (*Oncorhynchus spp.*) during their ocean phase, (2) the ambient oceanographic conditions, and (3) the distribution and biomass of zooplankton.

This report documents the data collected for the survey completed on the February 13-28, 2004. The survey design comprised fish, oceanographic and zooplankton sampling from the west coast of Vancouver Island to Sumner Strait in Southeast Alaska (56.5^{0}N).

MATERIALS AND METHODS

General Survey Information

Figures 1, 2, and 3 show the fishing, oceanographic and zooplankton stations completed by the *CCGS W.E. Ricker* on the February 13-28, 2004 survey. A total of 63 fishing stations, 77 oceanographic stations, and 77 zooplankton stations were completed.

The survey conducted scientific operations off the west coast of Vancouver Island, in Queen Charlotte Sound, in Dixon Entrance, on the inside straits of Southeast Alaska, and on the shelf off Southeast Alaska. Three of the Highseas Salmon program's standard cross-shelf transects were completed: the Estevan Point transect on the west coast of Vancouver Island, the Triangle Island transect across Queen Charlotte Sound, and the Forrester Island transect off Southeast Alaska.

Fishing Gear and Fishing Operations

The survey was conducted on the *CCGS W.E. Ricker*, a stern trawler 58 m in length which is powered by a 2,500 H.P. model AH 40 Akasaka diesel engine.

The *CCGS W.E. Ricker* towed a mid-water trawl, originally manufactured by Cantrawl Nets Ltd., Richmond, BC, and later modified to a model 240 trawl. The trawl has a heavy-duty front end of hexagonal web made from 3/8 in. (9.5 mm) and 5/16 in. (7.9 mm) Tenex rope, and a tapered body made-up of 64 in. (163 cm), 32 in. (81.3 cm), 16 in. (40.6 cm), 8 in. (20.3 cm) and 4 in. (10.2 cm) polypropylene sections, an intermediate section of 3 in. (7.6 cm) polypropylene, and a codend of 1.5 in. (3.8 cm) knotted nylon lined with 0.25 in. mesh (64 mm). The trawl has three 40 m bridles of 5/8 in. (1.6 cm) wire rope per side that are attached with a single hook-up to 5 m Jet doors. Typically, 100-150 m of 1.25 in. (3.2 cm) warp was paid out to tow the trawl at the surface.

The *CCGS W.E. Ricker* was able to tow the trawl at the surface at 5 knots (2.6 m s^{-1}) in good sea conditions, and this typically achieved a mouth opening of approximately 28 m wide by 16 m deep as measured acoustically by a Scanmar trawl eye mounted on the headrope. In rough weather, the trawl was towed at headrope depths down to 15 m.

Oceanographic Sampling

At oceanographic stations, the scientific crew (1) conducted CTD (conductivity-temperature-depth) casts, (2) collected surface seawater samples with a Niskin bottle for nitrate, phosphate, silicate, and salinity, and (3) filtered surface seawater on GF/F glass fibre filter disks for chlorophyll *a*.

Nitrate, phosphate, and silicate samples were collected in acid-washed glass test tubes, and the glass fiber disks were folded and placed in polypropylene scintillation vials. All these samples were stored frozen.

CTD casts were conducted to 250 m or within 5 m of the bottom with a Seabird SBE 911+ probe. Several calibration samples from selected CTD casts were collected over the course of the survey with Niskin bottles at depths where the salinities were stable.

Zooplankton Sampling

Vertical bongo tows to approximately 150 m or within 10 m of the bottom were conducted with two 57 cm diameter, 253 μm Nitex nets. One of the nets was equipped with a flowmeter.

Zooplankton collected from the net with the flowmeter were preserved in 10% formalin and sent to the zooplankton laboratory at the Institute of Ocean Sciences, Fisheries and Oceans Canada (Sidney, BC) for species classification and enumeration. Zooplankton taken from the net without flowmeter were sorted into four size fractions by successively sieving through 8.0, 1.7, 1.0, and 0.25 mm screens. Each size fraction was weighed wet, dried at 60°C for 48 hours, re-weighed, and stored in plastic bags for future stable isotope, bomb calorimetry, and proximate analyses.

RESULTS

Salmon Catch Data

Table 1 reports information on trawl tows and a summary of Pacific salmon catches for this survey. Tow information includes: station ID, transect name, sampling region, date and time, start latitude (°N) and longitude (°W), heading (°T; degrees true), and bottom depth (m). Station ID numbers consisted of the Pacific Biological Station cruise designation ("HS200403", where HS stands for High Seas), followed by a tow number (e.g., "HS200403-IVI01" for a tow #1 inside the inlets on the west coast of

Vancouver Island, British Columbia). The station ID number serves as the primary key in the High Seas salmon database that links fishing tow information with the oceanographic and zooplankton tables.

In Table 1, catch totals for each tow are provided for all chinook salmon (*O. tshawytscha*) ("CK") that includes all ages and size classes, and separately for juveniles and adults of chum salmon (*O. keta*) ("CM"), coho salmon (*O. kisutch*) ("CO"), pink salmon (*O. gorbuscha*) ("PK"), and sockeye salmon (*O. nerka*) ("SE"). In this report, "juveniles" are defined as fish in their first winter in the ocean (age X.1+), while "adults" include all older age groups (age X.2+ or older). Age separation was determined based on examination of size distributions (fork length) which showed non-overlapping size modes for pink, chum, coho and sockeye salmon (Figure 20). Chinook salmon were not divided into juveniles and adults based on size since there is considerable overlap among size modes that represent the multiple age groups (Figure 20).

In Table 2, catch totals for each tow are provided for all chinook salmon (*O. tshawytscha*) ("CK") that includes all ages and size classes, and for the following size classes: chinook less than 100 mm in fork length, chinook from 100 to 199 mm, chinook from 200 to 299 mm, chinook from 300 to 349 mm, chinook from 350 to 399 mm, chinook from 400 to 499 mm, and chinook greater than 500 mm.

The abbreviations for the regions in tables 1-6 are:

DE	Dixon Entrance
ISEA	inside straits of Southeast Alaska
IVI	inlets on the west coast of Vancouver Island
QCSD	Queen Charlotte Sound
SEA	Southeast Alaska
VI	west coast of Vancouver Island

Biological Data

Table 3 reports the detailed biological data collected from each Pacific salmon caught during the survey. Individual salmon were assigned a fish number which consisted of the cruise identifier (e.g., "HS200403"), followed hierarchically by tow number, species code, and sample number. For example, "HS200403-DE01-124-001" refers to tow number DE01 or tow #1 in Dixon Entrance, species code "124" for chinook salmon, and the sample number "001" (within tow and species). We used the following codes from Fisheries and Oceans' Salmon Stock Assessment database: 108, pink salmon; 112, chum salmon; 115, coho salmon; 118, sockeye salmon; and 124, chinook salmon.

Biological data collected for individual salmon includes: species common name, fork length (mm), whole body weight (g wet), sex, stomach content weight (g wet), %

water (based on the ratio of dry to wet whole body weight), coded wire tag number, pit tag number, and fin clip.

Salmon catch distributions

A total of 429 Pacific salmon were caught on this survey. Of these, 80 were juvenile chum salmon (age 0.1), 8 were juvenile sockeye salmon (age X.1) and 92 were juvenile coho (age 1.1) in their first winter in the ocean, and 237 were juvenile chinook salmon under 350 mm in fork length. No juvenile pink (age 0.1) were caught on the survey (Figure 4). Juvenile chum, sockeye, coho, and juvenile chinook from 100-199 mm were caught exclusively on the west coast of Vancouver Island (Figures 5, 6, 7,and 8). Seventy eight juvenile chum were caught at one station in Quatsino Sound, while only one was caught at two stations off Estevan Point and Clayquot Sound (Figure 5). Juvenile sockeye were caught within the range of 1-5 fish per tow at three stations: five at a station off Barkley Sound, one at a station off Clayquot Sound, and one at a station in Clarence Strait in Southeast Alaska (Figure 6). Juvenile coho were caught were caught primarily in Quatsino Sound at an average of 18.2 fish per tow on five tows (Figure 7). One juvenile coho was also caught at one station off Clayquot Sound. Juvenile chinook from 100-199 mm in fork length were caught within a range of 1-3 fish per tow and an average of 0.3 fish per tow (Figures 8). It is likely that most of these chinook in this size class are age 0.1, ocean ecotypes. Juvenile chinook from 200-299 mm were caught primarily both on the west coast of Vancouver Island at an average of 4.6 fish per tow and in range of 1-35 fish per tow, and in Sumner Strait in Southeast Alaska at an average of 10.9 fish per tow and in a range of 1-27 fish per tow (Figures 9). These juvenile chinook in Sumner Strait were mostly age 1.1, stream ecotypes from the Stikine River, based both on CWT recoveries and DNA stock identification analyses on samples collected on this program's winter surveys from 2001 to 2006. Juvenile chinook from 300-349 mm had a similar distribution but were far less abundant (Figure 10). They were also caught primarily both on the west coast of Vancouver Island and in Sumner Strait in Southeast Alaska, but at an average of just 0.2 fish per tow and in a range of 1-3 fish per tow, and at an average of 2.4 fish per tow and in a range of 1-7 fish per tow, respectively. Chinook equal to or greater than 350 mm were caught both on the west coast of Vancouver Island and in Southeast Alaska at an average of just 0.2 fish per tow and 0.3 fish per tow, respectfully (Figure 11).

CWT Recoveries

Table 6 reports the details on the coded wire tag (CWT) salmon caught during the survey. Reported information includes: the coded wire tag number, the assigned fish number, species common name, the date and region of recovery, the fork length (mm) at capture, the release area, the name of the agency and hatchery that released the tagged fish, the brood year, and dates of hatchery releases.

The abbreviations for release agencies in Table 6 are:

ADFG	Alaska Department of Fish and Game
CDFO	Canadian Department of Fisheries and Oceans
WDFW	Washington Department of Fish and Wlidlife

The abbreviations for release areas in Table 6 are:

SEAK	Southeast Alaska
UPCR	Upper Columbia River
WCVI	west coast Vancouver Island, B.C.
HOOD	Hood Canal, Washington

Four CWT chinook that had been released in the spring of 2003 were recovered on this winter, 2004 survey. Of these, one was an age 1.1 stream-type chinook from the upper Columbia River system that was recovered on the west coast of Vancouver Island; a second was an age 1.1 chinook from the Lake Whitman hatchery in Southeast Alaska that was recovered in Sumner Strait; a third was an age 0.1, ocean-type chinook from the Hood Canal in Puget Sound, Washington that was recovered off the west coast of Vancouver Island; and a fourth was an age 0.1, ocean-type chinook from the Robertson Creek hatchery that was recovered in Quatsino Sound on the west coast of Vancouver Island.

Oceanographic Data

Table 4 reports the physical oceanographic data collected during the survey, including the station ID number, transect, region, the date and time in UTC, the latitude (°N) and longitude (°W), sea surface temperature (SST; °C), and salinity (SSS; ppt) taken from the CTD files, sea surface salinities (ppt) determined from the sample bottles that were used to calibrate the CTD probe, nitrate, silicate and phosphate concentrations (μmol L^{-1}), and chlorophyll *a* (μg L^{-1}).

The contact procedure to obtain the CTD files is available at:

http://www-sci.pac.dfo-mpo.gc.ca/osap/data/default_e.htm

Zooplankton Data

Table 5 reports the zooplankton data by station collected by the Bongo tows, including the station ID number, transect, region, latitude (°N) and longitude (°W), bottom depth (m), the date and time, target depth (m), tow duration, wire angle (degrees), and volume of ocean water sampled in cubic meters that is calculated from the flow meter readings. Also shown are the dry weights (g) of zooplankton which were standardised to 1,000 cubic meters sampled for the 8.0, 1.7, 1.0, and 0.25 mm size factions as well as for the total sample.

The contact procedure to obtain detail species records from selected plankton sampling stations is available at:

http://www.pac.dfo-mpo.gc.ca/sci/osap/projects/plankton/zooplanktondatabase_e.htm

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Table 1. Tow positions and catch summaries of Pacific salmon for the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Date	Time	Latitude (°N)	Longitude (°W)	Heading (°T)	SOG (kts)	Bottom Depth (m)	CK all	CM Juv	CM ad.	CO Juv	CO Ad.	PK Juv	PK Ad.	SE Juv	SE Ad.
HS200403-IVI01	TREVOR CH	IVI	13-Feb-04	07:50	48.852	125.143	46	4.64	114	2	0	0	0	0	0	0	0	0
HS200403-VI01	OFF BARKLEY SD, VI	VI	14-Feb-04	09:52	48.769	125.299	238	4.76	85	9	0	0	0	0	0	0	5	0
HS200403-VI02	AMPHITRITE BK, VI	VI	14-Feb-04	12:42	48.906	125.631	318	4.87	84	2	0	0	0	0	0	0	0	0
HS200403-VI03	LONG BEACH, VI	VI	14-Feb-04	14:30	48.976	125.823	275	5.38	44	2	0	0	0	0	0	0	0	0
HS200403-VI04	LENNARD IS, VI	VI	14-Feb-04	16:12	49.055	126.026	312	5.79	54	3	0	0	0	0	0	0	0	0
HS200403-VI05	OFF CLAYQUOT SD, VI	VI	14-Feb-04	18:00	49.163	126.261	310	6.35	58	22	1	0	1	0	0	0	1	0
HS200403-EP01	ESTEVAN PT	VI	15-Feb-04	07:45	49.331	126.583	235	4.01	60	15	1	0	0	0	0	0	0	0
HS200403-EP02	ESTEVAN PT	VI	15-Feb-04	09:11	49.312	126.630	231	5.04	96	3	0	0	0	0	0	0	0	0
HS200403-EP03	ESTEVAN PT	VI	15-Feb-04	10:57	49.272	126.717	229	4.77	115	1	0	0	0	0	0	0	0	0
HS200403-EP04	ESTEVAN PT	VI	15-Feb-04	12:41	49.240	126.768	241	4.74	121	7	0	0	0	0	0	0	0	0
HS200403-EP05	ESTEVAN PT	VI	15-Feb-04	14:19	49.200	126.854	246	4.89	143	1	0	0	0	0	0	0	0	0
HS200403-EP06	ESTEVAN PT	VI	15-Feb-04	15:42	49.165	126.929	243	5.09	206	0	0	0	0	0	0	0	0	0
HS200403-IVI02	TAHSIS INLET, ESPERANZA	IVI	16-Feb-04	07:41	49.796	126.650	349	5.01	119	0	0	0	0	0	0	0	0	0
HS200403-IVI03	TAHSIS INLET, ESPERANZA	IVI	16-Feb-04	09:23	49.887	126.660	182	5.05	190	0	0	0	0	0	0	0	0	0
HS200403-IVI04	HECATE CH, ESPERANZA	IVI	16-Feb-04	11:22	49.878	126.764	333	5.47	256	3	0	0	0	0	0	0	0	0
HS200403-IVI05	ZEBALLOS INLET, ESPERANZA	IVI	16-Feb-04	12:54	49.938	126.808	167	4.69	204	0	0	0	0	0	0	0	0	0
HS200403-IVI06	ESPERANZA INLET	IVI	16-Feb-04	14:24	49.887	126.810	240	5.01	209	0	0	0	0	0	0	0	0	0
HS200403-IVI07	ESPERANZA INLET	IVI	16-Feb-04	16:08	49.849	126.966	79	6.16	198	0	0	0	0	0	0	0	0	0
HS200403-IVI08	ESPERANZA INLET	IVI	16-Feb-04	18:12	49.913	126.929	177	4.55	274	1	0	0	0	0	0	0	0	0
HS200403-IVI09	ESPERANZA INLET	IVI	17-Feb-04	10:06	49.854	126.931	74	2.99	217	0	0	0	0	0	0	0	0	0
HS200403-IVI10	ESPERANZA INLET	IVI	17-Feb-04	11:01	49.866	126.883	70	3.7	223	2	0	0	0	0	0	0	0	0
HS200403-IVI11	QUATSINO SD	IVI	18-Feb-04	07:41	50.471	127.889	84	4.61	125	39	0	0	74	0	0	0	0	0
HS200403-IVI12	QUATSINO SD	IVI	18-Feb-04	09:05	50.483	127.785	68	5.04	140	3	0	0	3	0	0	0	0	0
HS200403-IVI13	QUATSINO SD	IVI	18-Feb-04	11:00	50.497	127.573	147	4.88	126	0	0	0	0	0	0	0	0	0
HS200403-IVI14	QUATSINO SD	IVI	18-Feb-04	13:35	50.471	127.888	262	5.97	145	14	0	0	14	0	0	0	0	0
HS200403-IVI15	QUATSINO SD	IVI	18-Feb-04	15:49	50.417	127.981	252	5.54	148	11	78	0	0	0	0	0	0	0
HS200403-VI06	TOPKNOT PT, VI	VI	18-Feb-04	18:03	50.494	128.280	314	4.53	68	3	0	0	0	0	0	0	0	0
HS200403-DE01	DIXON ENTRANCE - McINTRE B	DE	20-Feb-04	07:27	54.174	131.877	269	5.27	73	3	0	0	0	0	0	0	0	0
HS200403-DE02	DIXON ENTRANCE - McINTRE B	DE	20-Feb-04	08:52	54.168	132.019	273	4.22	69	0	0	0	0	0	0	0	0	0
HS200403-DE03	DIXON ENTRANCE - WIAH PT	DE	20-Feb-04	10:38	54.147	132.221	261	4.7	57	0	0	0	0	0	0	0	0	0

Table 1. Tow positions and catch summaries of Pacific salmon for the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Date	Time	Latitude (°N)	Longitude (°W)	Heading (°T)	SOG (kts)	Bottom Depth (m)	CK all	CM Juv	CM ad.	CO Juv	CO Ad.	PK Juv	PK Ad.	SE Juv	SE Ad.
HS200403-DE04	DIXON ENTRANCE - KLASHWUN PT	DE	20-Feb-04	12:28	54.164	132.445	269	5.34	75	0	0	0	0	0	0	0	0	0
HS200403-DE05	DIXON ENTRANCE - KLASHWUN PT	DE	20-Feb-04	14:07	54.182	132.669	289	6.75	65	0	0	0	0	0	0	0	0	0
HS200403-DE06	DIXON ENTRANCE - LANGARA IS	DE	20-Feb-04	15:50	54.208	132.893	325	6.6	124	0	0	0	0	0	0	0	0	0
HS200403-ISEA01	CLARENCE ST	ISEA	21-Feb-04	07:41	55.477	132.036	322	6.54	472	1	0	0	0	0	0	0	2	0
HS200403-ISEA02	CLARENCE ST	ISEA	21-Feb-04	09:48	55.631	132.240	342	5.76	463	0	0	0	0	0	0	0	0	0
HS200403-ISEA03	CLARENCE ST	ISEA	21-Feb-04	12:04	55.768	132.338	334	6.01	577	0	0	0	0	0	0	0	0	0
HS200403-ISEA04	CLARENCE ST	ISEA	21-Feb-04	14:08	55.895	132.476	273	6.14	359	0	0	0	0	0	0	0	0	0
HS200403-ISEA05	CLARENCE ST	ISEA	21-Feb-04	15:56	55.968	132.679	322	5.34	397	0	0	0	0	0	0	0	0	0
HS200403-ISEA06	CLARENCE ST	ISEA	21-Feb-04	18:12	56.150	132.759	3	4.69	306	1	0	0	0	0	0	0	0	0
HS200403-ISEA07	SUMNER ST	ISEA	22-Feb-04	07:48	56.379	133.385	262	6.04	324	29	0	0	0	0	0	0	0	0
HS200403-ISEA08	STIKINE ST	ISEA	22-Feb-04	18:38	56.459	132.474	247	5.49	169	34	0	0	0	0	0	0	0	0
HS200403-ISEA09	SUMNER ST	ISEA	23-Feb-04	07:59	56.390	133.555	283	6.48	358	26	0	0	0	0	0	0	0	0
HS200403-ISEA10	SUMNER ST	ISEA	23-Feb-04	10:22	56.358	133.773	186	3.86	205	1	0	0	0	0	0	0	0	0
HS200403-ISEA11	SUMNER ST	ISEA	23-Feb-04	12:14	56.279	133.787	173	4.48	290	1	0	0	0	0	0	0	0	0
HS200403-ISEA12	SUMNER ST	ISEA	23-Feb-04	13:52	56.197	133.808	144	5.34	234	3	0	0	0	0	0	0	0	0
HS200403-ISEA13	SUMNER ST	ISEA	23-Feb-04	15:34	56.100	133.788	204	5.67	278	0	0	0	0	0	0	0	0	0
HS200403-ISEA14	SUMNER ST	ISEA	23-Feb-04	18:13	55.990	133.867	245	6.35	166	5	0	0	0	0	0	0	0	0
HS200403-FI04	FORRESTER IS	SEA	24-Feb-04	17:48	54.753	133.428	83	4.82	139	0	0	0	0	0	0	0	0	0
HS200403-FI03	FORRESTER IS	SEA	24-Feb-04	18:42	54.763	133.332	79	4.58	129	0	0	0	0	0	0	0	0	0
HS200403-SEA01	DALL IS	SEA	25-Feb-04	07:32	54.935	133.216	148	4.4	101	1	0	0	0	0	0	0	0	0
HS200403-SEA02	DALL IS	SEA	25-Feb-04	09:02	54.860	133.143	161	5.47	106	0	0	0	0	0	0	0	0	0
HS200403-FI02	FORRESTER IS	SEA	25-Feb-04	10:43	54.780	133.169	78	4.6	186	0	0	0	0	0	0	0	0	0
HS200403-FI01	FORRESTER IS	SEA	25-Feb-04	12:31	54.777	133.028	122	5.64	191	0	0	0	0	0	0	0	0	0
HS200403-SEA03	DALL IS	SEA	25-Feb-04	14:38	54.698	132.930	139	4.77	152	1	0	0	0	0	0	0	0	0
HS200403-SEA04	DALL IS	SEA	25-Feb-04	16:21	54.617	132.769	136	5.37	250	0	0	0	0	0	0	0	0	0
HS200403-ISEA15	C MUZON	ISEA	25-Feb-04	18:08	54.623	132.588	93	4.59	134	0	0	0	0	0	0	0	0	0
HS200403-T07	TRIANGLE IS	VI	27-Feb-04	15:31	50.826	129.238	293	5.13	71	0	0	0	0	0	0	0	0	0
HS200403-T06	TRIANGLE IS	QCSD	27-Feb-04	17:59	50.942	128.978	54	5.07	59	0	0	0	0	0	0	0	0	0
HS200403-T05	TRIANGLE IS	QCSD	28-Feb-04	07:25	51.011	128.851	50	4.81	58	0	0	0	0	0	0	0	0	0
HS200403-T04	TRIANGLE IS	QCSD	28-Feb-04	08:52	51.083	128.726	55	4.8	60	0	0	0	0	0	0	0	0	0

Table 1. Tow positions and catch summaries of Pacific salmon for the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Date	Time	Latitude (°N)	Longitude (°W)	Heading (°T)	SOG (kts)	Bottom Depth (m)	CK all	CM Juv	CM ad.	CO Juv	CO Ad.	PK Juv	PK Ad.	SE Juv	SE Ad.
HS200403-T03	TRIANGLE IS	QCSD	28-Feb-04	10:52	51.151	128.588	54	4.67	146	0	0	0	0	0	0	0	0	0
HS200403-T02	TRIANGLE IS	QCSD	28-Feb-04	12:32	51.217	128.452	63	5.24	181	0	0	0	0	0	0	0	0	0
HS200403-T01	TRIANGLE IS	QCSD	28-Feb-04	14:07	51.272	128.318	146	4.76	69	0	0	0	0	0	0	0	0	0
									Totals	249	80	0	92	0	0	0	8	0
															Overall total			429

Table 2. Catch summaries for each size class of Chinook salmon for the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Region	Date	Time PST	Latitude (°N)	Longitude (°W)	Bottom Depth (m)	CK<100 mm	CK 100-199 mm	CK 200-299 mm	CK 300-349 mm	CK 350-399 mm	CK 400-499mm	CK >=500 mm	CK all
HS200403-IVI01	IVI	13-Feb-04	07:50	48.852	125.143	114	0	0	1	0	0	1	0	2
HS200403-VI01	VI	14-Feb-04	09:52	48.769	125.299	85	0	0	9	0	0	0	0	9
HS200403-VI02	VI	14-Feb-04	12:42	48.906	125.631	84	0	0	2	0	0	0	0	2
HS200403-VI03	VI	14-Feb-04	14:30	48.976	125.823	44	0	0	2	0	0	0	0	2
HS200403-VI04	VI	14-Feb-04	16:12	49.055	126.026	54	0	0	3	0	0	0	0	3
HS200403-VI05	VI	14-Feb-04	18:00	49.163	126.261	58	0	2	16	1	0	1	2	22
HS200403-EP01	VI	15-Feb-04	07:45	49.331	126.583	60	0	1	13	1	0	0	0	15
HS200403-EP02	VI	15-Feb-04	09:11	49.312	126.630	96	0	0	3	0	0	0	0	3
HS200403-EP03	VI	15-Feb-04	10:57	49.272	126.717	115	0	0	1	0	0	0	0	1
HS200403-EP04	VI	15-Feb-04	12:41	49.240	126.768	121	0	0	7	0	0	0	0	7
HS200403-EP05	VI	15-Feb-04	14:19	49.200	126.854	143	0	0	1	0	0	0	0	1
HS200403-EP06	VI	15-Feb-04	15:42	49.165	126.929	206	0	0	0	0	0	0	0	0
HS200403-IVI02	IVI	16-Feb-04	07:41	49.796	126.650	119	0	0	0	0	0	0	0	0
HS200403-IVI03	IVI	16-Feb-04	09:23	49.887	126.660	190	0	0	0	0	0	0	0	0
HS200403-IVI04	IVI	16-Feb-04	11:22	49.878	126.764	256	0	3	0	0	0	0	0	3
HS200403-IVI05	IVI	16-Feb-04	12:54	49.938	126.808	204	0	0	0	0	0	0	0	0
HS200403-IVI06	IVI	16-Feb-04	14:24	49.887	126.810	209	0	0	0	0	0	0	0	0
HS200403-IVI07	IVI	16-Feb-04	16:08	49.849	126.966	198	0	0	0	0	0	0	0	0
HS200403-IVI08	IVI	16-Feb-04	18:12	49.913	126.929	274	0	1	0	0	0	0	0	1
HS200403-IVI09	IVI	17-Feb-04	10:06	49.854	126.931	217	0	0	0	0	0	0	0	0
HS200403-IVI10	IVI	17-Feb-04	11:01	49.866	126.863	223	0	0	2	0	0	0	0	2
HS200403-IVI11	IVI	18-Feb-04	07:41	50.471	127.889	125	0	1	35	3	0	0	0	39
HS200403-IVI12	IVI	18-Feb-04	09:05	50.483	127.785	140	0	0	3	0	0	0	0	3
HS200403-IVI13	IVI	18-Feb-04	11:00	50.497	127.573	126	0	0	0	0	0	0	0	0
HS200403-IVI14	IVI	18-Feb-04	13:35	50.471	127.888	145	0	0	13	0	0	0	1	14
HS200403-IVI15	IVI	18-Feb-04	15:49	50.417	127.981	148	0	0	11	0	0	0	0	11
HS200403-VI06	VI	18-Feb-04	18:03	50.494	128.280	68	0	0	2	1	0	0	0	3
HS200403-DE01	DE	20-Feb-04	07:27	54.174	131.877	73	0	0	3	0	0	0	0	3
HS200403-DE02	DE	20-Feb-04	08:52	54.168	132.019	69	0	0	0	0	0	0	0	0
HS200403-DE03	DE	20-Feb-04	10:38	54.147	132.221	57	0	0	0	0	0	0	0	0

Table 2. Catch summaries for each size class of Chinook salmon for the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Region	Date	Time PST	Latitude (°N)	Longitude (°W)	Bottom Depth (m)	CK<100 mm	CK 100-199 mm	CK 200-299 mm	CK 300-349 mm	CK 350-399 mm	CK 400-499mm	CK >=500 mm	CK all
HS200403-DE04	DE	20-Feb-04	12:28	54.164	132.445	75	0	0	0	0	0	0	0	0
HS200403-DE05	DE	20-Feb-04	14:07	54.182	132.669	65	0	0	0	0	0	0	0	0
HS200403-DE06	DE	20-Feb-04	15:50	54.208	132.893	124	0	0	0	0	0	0	0	0
HS200403-ISEA01	ISEA	21-Feb-04	07:41	55.477	132.038	472	0	0	0	0	1	0	0	1
HS200403-ISEA02	ISEA	21-Feb-04	09:48	55.631	132.240	463	0	0	0	0	0	0	0	0
HS200403-ISEA03	ISEA	21-Feb-04	12:04	55.768	132.338	577	0	0	0	0	0	0	0	0
HS200403-ISEA04	ISEA	21-Feb-04	14:08	55.895	132.476	359	0	0	0	0	0	0	0	0
HS200403-ISEA05	ISEA	21-Feb-04	15:56	55.968	132.679	397	0	0	0	0	0	0	0	0
HS200403-ISEA06	ISEA	21-Feb-04	18:12	56.156	132.759	306	0	0	1	0	0	0	0	1
HS200403-ISEA07	ISEA	22-Feb-04	07:48	56.379	133.385	324	0	0	27	2	0	0	0	29
HS200403-ISEA08	ISEA	22-Feb-04	18:38	56.459	132.474	169	0	0	26	7	0	0	1	34
HS200403-ISEA09	ISEA	23-Feb-04	07:59	56.390	133.555	358	0	0	19	6	1	0	0	26
HS200403-ISEA10	ISEA	23-Feb-04	10:22	56.358	133.773	205	0	0	1	0	0	0	0	1
HS200403-ISEA11	ISEA	23-Feb-04	12:14	56.279	133.787	290	0	0	0	0	0	0	1	1
HS200403-ISEA12	ISEA	23-Feb-04	13:52	56.197	133.808	234	0	0	3	0	0	0	0	3
HS200403-ISEA13	ISEA	23-Feb-04	15:34	56.100	133.788	278	0	0	0	0	0	0	0	0
HS200403-ISEA14	ISEA	23-Feb-04	18:13	55.990	133.867	166	0	0	0	4	1	0	0	5
HS200403-FI04	SEA	24-Feb-04	17:48	54.753	133.428	139	0	0	0	0	0	0	0	0
HS200403-FI03	SEA	24-Feb-04	18:42	54.763	133.332	129	0	0	0	0	0	0	0	0
HS200403-SEA01	SEA	25-Feb-04	07:32	54.935	133.216	101	0	0	0	0	1	0	0	1
HS200403-SEA02	SEA	25-Feb-04	09:02	54.860	133.143	106	0	0	0	0	0	0	0	0
HS200403-FI02	SEA	25-Feb-04	10:43	54.780	133.169	186	0	0	0	0	0	0	0	0
HS200403-FI01	SEA	25-Feb-04	12:31	54.777	133.028	191	0	0	0	0	0	0	0	0
HS200403-SEA03	SEA	25-Feb-04	14:38	54.698	132.930	152	0	0	0	0	0	0	1	1
HS200403-SEA04	SEA	25-Feb-04	16:21	54.617	132.769	250	0	0	0	0	0	0	0	0
HS200403-ISEA15	ISEA	25-Feb-04	18:08	54.623	132.588	134	0	0	0	0	0	0	0	0
HS200403-T07	VI	27-Feb-04	15:31	50.826	129.238	71	0	0	0	0	0	0	0	0
HS200403-T06	QCSD	27-Feb-04	17:59	50.942	128.978	59	0	0	0	0	0	0	0	0
HS200403-T05	QCSD	28-Feb-04	07:25	51.011	128.851	58	0	0	0	0	0	0	0	0
HS200403-T04	QCSD	28-Feb-04	08:52	51.083	128.726	60	0	0	0	0	0	0	0	0

Table 2. Catch summaries for each size class of Chinook salmon for the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Region	Date	Time PST	Latitude (°N)	Longitude (°W)	Bottom Depth (m)	CK<100 mm	CK 100-199 mm	CK 200-299 mm	CK 300-349 mm	CK 350-399 mm	CK 400-499mm	CK >=500 mm	CK all
HS200403-T03	QCSD	28-Feb-04	10:52	51.151	128.568	146	0	0	0	0	0	0	0	0
HS200403-T02	QCSD	28-Feb-04	12:32	51.217	128.452	181	0	0	0	0	0	0	0	0
HS200403-T01	QCSD	28-Feb-04	14:07	51.272	128.318	69	0	0	0	0	0	0	0	0
						TOTALS	0	8	204	25	4	2	6	249

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-DE01-124-001	CHINOOK	282	253	F	0.38			
HS200403-DE01-124-002	CHINOOK	297	319	F	3.59			
HS200403-DE01-124-003	CHINOOK	274	273	F	0.57			
HS200403-EP01-124-001	CHINOOK	205	96	F	0.22			AD
HS200403-EP01-124-002	CHINOOK	266	252	F	7.26			AD
HS200403-EP01-124-003	CHINOOK	226	151	M	3.95			AD
HS200403-EP01-124-004	CHINOOK	235	155	M	1.82			AD
HS200403-EP01-124-005	CHINOOK	265	238	M	0.37			
HS200403-EP01-124-006	CHINOOK	226	134	F	0.27			
HS200403-EP01-124-007	CHINOOK	266	228	M	3.02			
HS200403-EP01-124-008	CHINOOK	224	131	F	4.66			
HS200403-EP01-124-009	CHINOOK	191	83	F	0.52			
HS200403-EP01-124-010	CHINOOK	246	179	M	0.23			
HS200403-EP01-124-011	CHINOOK	296	288	M	2.01			
HS200403-EP01-124-012	CHINOOK	215	122	F	3.05			
HS200403-EP01-124-013	CHINOOK	252	187	M	1.14			
HS200403-EP01-124-014	CHINOOK	233	155	F	3.19			
HS200403-EP01-124-015	CHINOOK	324	436	F	0.22			
HS200403-EP02-124-001	CHINOOK	265	238	M	0.22			AD
HS200403-EP02-124-002	CHINOOK	256	194	F	0.45			
HS200403-EP02-124-003	CHINOOK	261	203	F	0.73			
HS200403-EP03-124-001	CHINOOK	255	190	F	1.25			
HS200403-EP04-124-001	CHINOOK	280	287	F	8.92			AD
HS200403-EP04-124-002	CHINOOK	252	203	F	13.39			AD
HS200403-EP04-124-003	CHINOOK	262	209	M	0.2			
HS200403-EP04-124-004	CHINOOK	289	330	F	18.56			
HS200403-EP04-124-005	CHINOOK	271	221	M	0.8			
HS200403-EP04-124-006	CHINOOK	230	136	M	0.35			
HS200403-EP04-124-007	CHINOOK	224	131	M	0.4			
HS200403-EP05-124-001	CHINOOK	296	320	F	2.31			
HS200403-ISEA01-124-001	CHINOOK	354	568	F	0.77			
HS200403-ISEA06-124-001	CHINOOK	299	327	M	2.23			
HS200403-ISEA07-124-001	CHINOOK	283	291	F	0.69			
HS200403-ISEA07-124-002	CHINOOK	288	315	M	1.83			
HS200403-ISEA07-124-003	CHINOOK	266	229	M	0.11			
HS200403-ISEA07-124-004	CHINOOK	262	213	M	0.21			
HS200403-ISEA07-124-005	CHINOOK	294	305	M	0.76			
HS200403-ISEA07-124-006	CHINOOK	274	244	F	0.3			
HS200403-ISEA07-124-007	CHINOOK	313	329	F	0.56			

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-ISEA07-124-008	CHINOOK	268	244	M	0.2			
HS200403-ISEA07-124-009	CHINOOK	251	204	F	0.17			
HS200403-ISEA07-124-010	CHINOOK	271	247	F	0.69			
HS200403-ISEA07-124-011	CHINOOK	266	215	M	0.66			
HS200403-ISEA07-124-012	CHINOOK	258	220	M	2.94			
HS200403-ISEA07-124-013	CHINOOK	290	311	F	0.44			
HS200403-ISEA07-124-014	CHINOOK	292	310	F	0.1			AD
HS200403-ISEA07-124-015	CHINOOK	255	207	F	0.25			
HS200403-ISEA07-124-016	CHINOOK	273	237	M	1.11			
HS200403-ISEA07-124-017	CHINOOK	262	221	F	0.04			
HS200403-ISEA07-124-018	CHINOOK	238	167	M	0.45			
HS200403-ISEA07-124-019	CHINOOK	256	208	F	0.56			
HS200403-ISEA07-124-020	CHINOOK	262	218	M	0.27			
HS200403-ISEA07-124-021	CHINOOK	300	319	M	1.19			
HS200403-ISEA07-124-022	CHINOOK	253	190	M	1.07			
HS200403-ISEA07-124-023	CHINOOK	288	294	F	1.51			
HS200403-ISEA07-124-024	CHINOOK	290	314	F	0.91			AD
HS200403-ISEA07-124-025	CHINOOK	270	248	M	0.7			
HS200403-ISEA07-124-026	CHINOOK	288	317	M	0.52			
HS200403-ISEA07-124-027	CHINOOK	261	211	M	1.69			
HS200403-ISEA07-124-028	CHINOOK	291	293	M	1.83			
HS200403-ISEA07-124-029	CHINOOK	287	299	F	0.8			
HS200403-ISEA08-124-001	CHINOOK	322	396	F	1.95			
HS200403-ISEA08-124-002	CHINOOK	314	397	M	10.35			
HS200403-ISEA08-124-003	CHINOOK	235	163	F	4			
HS200403-ISEA08-124-004	CHINOOK	213	115	M	0.68			
HS200403-ISEA08-124-005	CHINOOK	317	386	F	1.73			
HS200403-ISEA08-124-006	CHINOOK	230	140	M	3.25			
HS200403-ISEA08-124-007	CHINOOK	235	147	M	2.46			
HS200403-ISEA08-124-008	CHINOOK	321	418	M	11.66			
HS200403-ISEA08-124-009	CHINOOK	319	406	M	4.29			
HS200403-ISEA08-124-010	CHINOOK	224	138	F	4.5			
HS200403-ISEA08-124-011	CHINOOK	258	221	M	2.57			
HS200403-ISEA08-124-012	CHINOOK	252	194	M	0.59			
HS200403-ISEA08-124-013	CHINOOK	265	237	F	4.89			
HS200403-ISEA08-124-014	CHINOOK	322	372	F	2.84			
HS200403-ISEA08-124-015	CHINOOK	248	189	F	3.98			
HS200403-ISEA08-124-016	CHINOOK	240	156	M	1.45			
HS200403-ISEA08-124-017	CHINOOK	213	112	M	0.83			

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-ISEA08-124-018	CHINOOK	245	187	M	3.24			
HS200403-ISEA08-124-019	CHINOOK	272	232	M	2.3			
HS200403-ISEA08-124-020	CHINOOK	244	170	F	7.16			
HS200403-ISEA08-124-021	CHINOOK	236	164	F	4.58			
HS200403-ISEA08-124-022	CHINOOK	284	281	M	2.23			AD
HS200403-ISEA08-124-023	CHINOOK	278	249	F	3.3			
HS200403-ISEA08-124-024	CHINOOK	290	321	F	5.79			AD
HS200403-ISEA08-124-025	CHINOOK	318	391	M	8.88			
HS200403-ISEA08-124-026	CHINOOK	271	246	F	1.67			
HS200403-ISEA08-124-027	CHINOOK	293	318	M	0.24			
HS200403-ISEA08-124-028	CHINOOK	265	237	F	2.51			
HS200403-ISEA08-124-029	CHINOOK	250	189	F	2.43			
HS200403-ISEA08-124-030	CHINOOK	268	236	M	3.06			
HS200403-ISEA08-124-031	CHINOOK	245						
HS200403-ISEA08-124-032	CHINOOK	248						
HS200403-ISEA08-124-033	CHINOOK	233						
HS200403-ISEA08-124-034	CHINOOK	713	5500	M				
HS200403-ISEA09-124-001	CHINOOK	327	437	M	1.01	1.1	T040764	AD
HS200403-ISEA09-124-002	CHINOOK	248	185	F	0.4			
HS200403-ISEA09-124-003	CHINOOK	254	203	M	0.2			
HS200403-ISEA09-124-004	CHINOOK	241	176	F	0.6			
HS200403-ISEA09-124-005	CHINOOK	267	229	F	0.08			
HS200403-ISEA09-124-006	CHINOOK	291	301	M	0.42			
HS200403-ISEA09-124-007	CHINOOK	246	188	F	0.86			
HS200403-ISEA09-124-008	CHINOOK	280	250	F	0.73			
HS200403-ISEA09-124-009	CHINOOK	248	179	M	0.67			
HS200403-ISEA09-124-010	CHINOOK	298	315	F	0.13			
HS200403-ISEA09-124-011	CHINOOK	250	180	F	0.99			
HS200403-ISEA09-124-012	CHINOOK	246	206	F	0.74			
HS200403-ISEA09-124-013	CHINOOK	270	240	F	0.72			
HS200403-ISEA09-124-014	CHINOOK	259	214	M	0.79			
HS200403-ISEA09-124-015	CHINOOK	314	359	M	0.09			
HS200403-ISEA09-124-016	CHINOOK	268	240	F	0.75			
HS200403-ISEA09-124-017	CHINOOK	301	336	F	2.8			
HS200403-ISEA09-124-018	CHINOOK	268	233	F	2.01			
HS200403-ISEA09-124-019	CHINOOK	296	286	F	0.18			
HS200403-ISEA09-124-020	CHINOOK	273	255	F	0.47			
HS200403-ISEA09-124-021	CHINOOK	278	280	F	0.76			
HS200403-ISEA09-124-022	CHINOOK	321	395	F	1.11			

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-ISEA09-124-023	CHINOOK	313	376	M	1.05			
HS200403-ISEA09-124-024	CHINOOK	270	237	F	1.03			
HS200403-ISEA09-124-025	CHINOOK	320	456	M	5.22			
HS200403-ISEA09-124-026	CHINOOK	382	701					
HS200403-ISEA10-124-001	CHINOOK	268	233	F	0.26			
HS200403-ISEA11-124-001	CHINOOK	552	2198					
HS200403-ISEA12-124-001	CHINOOK	265	248	F	4.79			
HS200403-ISEA12-124-002	CHINOOK	233	155	F	4.83			
HS200403-ISEA12-124-003	CHINOOK	259	216	M	5.4			
HS200403-ISEA14-124-001	CHINOOK	350	573	M	14.36			
HS200403-ISEA14-124-002	CHINOOK	303	383	F	10.88			
HS200403-ISEA14-124-003	CHINOOK	316	431	M	15.01			
HS200403-ISEA14-124-004	CHINOOK	307	383	F	0.87			
HS200403-ISEA14-124-005	CHINOOK	306	374	F	19.01			
HS200403-IVI01-124-001	CHINOOK	492	1447					AD
HS200403-IVI01-124-002	CHINOOK	225	130	M	1.29			
HS200403-IVI04-124-001	CHINOOK	187	70	F	0.92			
HS200403-IVI04-124-002	CHINOOK	186	75	M	1.12			
HS200403-IVI04-124-003	CHINOOK	179	59	M	1.86			
HS200403-IVI08-124-001	CHINOOK	180	66	F	0.92			
HS200403-IVI10-124-001	CHINOOK	273	251	M	2.32			
HS200403-IVI10-124-002	CHINOOK	236	155	F	1.36			
HS200403-IVI11-124-001	CHINOOK	250	194	F	1.38			
HS200403-IVI11-124-002	CHINOOK	302	306	F	0.17	1.1	T631550	AD
HS200403-IVI11-124-003	CHINOOK	273	245	M	4.57			
HS200403-IVI11-124-004	CHINOOK	252	206	F	4.99			
HS200403-IVI11-124-005	CHINOOK	266	205	M	4.89			
HS200403-IVI11-124-006	CHINOOK	258	199	F	0.24			
HS200403-IVI11-124-007	CHINOOK	244	163	F	0.46			
HS200403-IVI11-124-008	CHINOOK	206	109	M	0.16			
HS200403-IVI11-124-009	CHINOOK	153	42	M	0.03			
HS200403-IVI11-124-010	CHINOOK	261	202	F	0.11			
HS200403-IVI11-124-011	CHINOOK	290	311	F	12.87			
HS200403-IVI11-124-012	CHINOOK	308	324	F	3.36			
HS200403-IVI11-124-013	CHINOOK	260	211	M	0.2			AD
HS200403-IVI11-124-014	CHINOOK	260	205	F	5.27			
HS200403-IVI11-124-015	CHINOOK	282	250	F	0.25			
HS200403-IVI11-124-016	CHINOOK	285	293	M	2.11			
HS200403-IVI11-124-017	CHINOOK	290	257	M	2.76			

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-IVI11-124-018	CHINOOK	277	256	M	2.23			
HS200403-IVI11-124-019	CHINOOK	244	180	F	1.87			
HS200403-IVI11-124-020	CHINOOK	242	156	M	0.3			
HS200403-IVI11-124-021	CHINOOK	267	227	F	6.87			
HS200403-IVI11-124-022	CHINOOK	245	160	F	1.73			
HS200403-IVI11-124-023	CHINOOK	241	175	M	4.17			AD
HS200403-IVI11-124-024	CHINOOK	260	221	F	5.79			
HS200403-IVI11-124-025	CHINOOK	268	239	M	1.11			
HS200403-IVI11-124-026	CHINOOK	256	197	M	0.24			
HS200403-IVI11-124-027	CHINOOK	238	151	F	0.22			
HS200403-IVI11-124-028	CHINOOK	258	198	F	0.4			
HS200403-IVI11-124-029	CHINOOK	322	375	M	0.56			
HS200403-IVI11-124-030	CHINOOK	251	158	M	0.38			
HS200403-IVI11-124-031	CHINOOK	240						AD
HS200403-IVI11-124-032	CHINOOK	240						
HS200403-IVI11-124-033	CHINOOK	240						
HS200403-IVI11-124-034	CHINOOK	206						
HS200403-IVI11-124-035	CHINOOK	267						
HS200403-IVI11-124-036	CHINOOK	250						
HS200403-IVI11-124-037	CHINOOK	228						
HS200403-IVI11-124-038	CHINOOK	292						
HS200403-IVI11-124-039	CHINOOK	206						
HS200403-IVI12-124-001	CHINOOK	229	133	F	0.59			
HS200403-IVI12-124-002	CHINOOK	253	183	M	0.88			
HS200403-IVI12-124-003	CHINOOK	205	98	F	0.35			
HS200403-IVI14-124-001	CHINOOK	208	98	F	0.17	0.1	T185036	AD
HS200403-IVI14-124-002	CHINOOK	234	150	M	5.64			
HS200403-IVI14-124-003	CHINOOK	211	105	M	0.63			
HS200403-IVI14-124-004	CHINOOK	264	251	F	8.64			
HS200403-IVI14-124-005	CHINOOK	203	92	F	0.45			
HS200403-IVI14-124-006	CHINOOK	265	213	M	7.13			
HS200403-IVI14-124-007	CHINOOK	230	131	F	0.51			
HS200403-IVI14-124-008	CHINOOK	248	163	F	0.57			
HS200403-IVI14-124-009	CHINOOK	231	140	F	4.16			
HS200403-IVI14-124-010	CHINOOK	265	207	F	0.54			
HS200403-IVI14-124-011	CHINOOK	271	235	F	0.63			
HS200403-IVI14-124-012	CHINOOK	216	122	F	0.6			
HS200403-IVI14-124-013	CHINOOK	205	94	F	0.61			
HS200403-IVI14-124-014	CHINOOK	621	2403	F				

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-IVI15-124-001	CHINOOK	290	332	F	13.88			
HS200403-IVI15-124-002	CHINOOK	294	331	M	0.89			
HS200403-IVI15-124-003	CHINOOK	238	164	F	0.3			AD
HS200403-IVI15-124-004	CHINOOK	223	124	F	2.25			
HS200403-IVI15-124-005	CHINOOK	235	151	M	0.67			
HS200403-IVI15-124-006	CHINOOK	219	129	F	2.13			
HS200403-IVI15-124-007	CHINOOK	222	124	F	8.24			
HS200403-IVI15-124-008	CHINOOK	234	163	M	4.01			
HS200403-IVI15-124-009	CHINOOK	206	104	M	0.12			
HS200403-IVI15-124-010	CHINOOK	210	103	F	2.39			
HS200403-IVI15-124-011	CHINOOK	213	117	F	1.87			
HS200403-SEA01-124-001	CHINOOK	365	621	F	0.84			
HS200403-SEA03-124-001	CHINOOK	740	5200	F				
HS200403-VI01-124-001	CHINOOK	218	128	M	0.52			
HS200403-VI01-124-002	CHINOOK	244	181	F	1.44			
HS200403-VI01-124-003	CHINOOK	214	116	M	0.74			
HS200403-VI01-124-004	CHINOOK	203	102	F	0.82			
HS200403-VI01-124-005	CHINOOK	230	147	F	2.96			
HS200403-VI01-124-006	CHINOOK	222	131	F	1.36			
HS200403-VI01-124-007	CHINOOK	281	263	M	0.33			
HS200403-VI01-124-008	CHINOOK	216	125	F	1.79			
HS200403-VI01-124-009	CHINOOK	229	146	F	0.63	0.1	T631372	
HS200403-VI02-124-001	CHINOOK	254	213	M	48.52			
HS200403-VI02-124-002	CHINOOK	231	141	M	1.39			
HS200403-VI03-124-001	CHINOOK	240	161	M	2.13			
HS200403-VI03-124-002	CHINOOK	239	159	F	2.16			
HS200403-VI04-124-001	CHINOOK	205	98	F	2.62			
HS200403-VI04-124-002	CHINOOK	208	107	M	4.08			AD
HS200403-VI04-124-003	CHINOOK	235	172	F	7.63			
HS200403-VI05-124-001	CHINOOK	230	140	F	0.25			
HS200403-VI05-124-002	CHINOOK	252	182	M	1.97			
HS200403-VI05-124-003	CHINOOK	222	138	F	1.95			
HS200403-VI05-124-004	CHINOOK	222	132	F	0.2			
HS200403-VI05-124-005	CHINOOK	265	228	F	1.65			
HS200403-VI05-124-006	CHINOOK	250	191	M	0.13			
HS200403-VI05-124-007	CHINOOK	206	103	M	0.34			
HS200403-VI05-124-008	CHINOOK	191	80	F	0.07			
HS200403-VI05-124-009	CHINOOK	202	92	F	0.95			AD
HS200403-VI05-124-010	CHINOOK	219	123	M	5.02			

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-VI05-124-011	CHINOOK	198	89	F	0.3			
HS200403-VI05-124-012	CHINOOK	223	136	F	0.34			
HS200403-VI05-124-013	CHINOOK	236	155	F	0.08			
HS200403-VI05-124-014	CHINOOK	219	141	F	8.78			
HS200403-VI05-124-015	CHINOOK	205	101	F	0.26			
HS200403-VI05-124-016	CHINOOK	208	106	F	0.53			
HS200403-VI05-124-017	CHINOOK	203	93	M	0.92			
HS200403-VI05-124-018	CHINOOK	235	158	M	1.66			
HS200403-VI05-124-019	CHINOOK	880	9000					
HS200403-VI05-124-020	CHINOOK	537	1900					
HS200403-VI05-124-021	CHINOOK	400	790					
HS200403-VI05-124-022	CHINOOK	322	392					
HS200403-VI06-124-001	CHINOOK	300	351					
HS200403-VI06-124-002	CHINOOK	277	289					
HS200403-VI06-124-003	CHINOOK	294	344					
HS200403-EP01-112-001	CHUM	272	206					
HS200403-IVI15-112-001	CHUM	241	147					
HS200403-IVI15-112-002	CHUM	241	151					
HS200403-IVI15-112-003	CHUM	221	114					
HS200403-IVI15-112-004	CHUM	232	133					
HS200403-IVI15-112-005	CHUM	236	134					
HS200403-IVI15-112-006	CHUM	228	124					
HS200403-IVI15-112-007	CHUM	233	127					
HS200403-IVI15-112-008	CHUM	235	140					
HS200403-IVI15-112-009	CHUM	235	138					
HS200403-IVI15-112-010	CHUM	240	133					
HS200403-IVI15-112-011	CHUM	240	147					
HS200403-IVI15-112-012	CHUM	248	159					
HS200403-IVI15-112-013	CHUM	254	187					
HS200403-IVI15-112-014	CHUM	251	170					
HS200403-IVI15-112-015	CHUM	230	121					
HS200403-IVI15-112-016	CHUM	245	149					
HS200403-IVI15-112-017	CHUM	244	151					
HS200403-IVI15-112-018	CHUM	238	145					
HS200403-IVI15-112-019	CHUM	237	138					
HS200403-IVI15-112-020	CHUM	234	136					
HS200403-IVI15-112-021	CHUM	232	127					
HS200403-IVI15-112-022	CHUM	242	151					
HS200403-IVI15-112-023	CHUM	225	118					

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-IVI15-112-024	CHUM	242	143					
HS200403-IVI15-112-025	CHUM	220	110					
HS200403-IVI15-112-026	CHUM	246	154					
HS200403-IVI15-112-027	CHUM	228	121					
HS200403-IVI15-112-028	CHUM	237	141					
HS200403-IVI15-112-029	CHUM	240	150					
HS200403-IVI15-112-030	CHUM	260	186					
HS200403-IVI15-112-031	CHUM	235						
HS200403-IVI15-112-032	CHUM	254						
HS200403-IVI15-112-033	CHUM	228						
HS200403-IVI15-112-034	CHUM	230						
HS200403-IVI15-112-035	CHUM	251						
HS200403-IVI15-112-036	CHUM	236						
HS200403-IVI15-112-037	CHUM	236						
HS200403-IVI15-112-038	CHUM	246						
HS200403-IVI15-112-039	CHUM	232						
HS200403-IVI15-112-040	CHUM	232						
HS200403-IVI15-112-041	CHUM	218						
HS200403-IVI15-112-042	CHUM	246						
HS200403-IVI15-112-043	CHUM	239						
HS200403-IVI15-112-044	CHUM	246						
HS200403-IVI15-112-045	CHUM	230						
HS200403-IVI15-112-046	CHUM	242						
HS200403-IVI15-112-047	CHUM	234						
HS200403-IVI15-112-048	CHUM	235						
HS200403-IVI15-112-049	CHUM	246						
HS200403-IVI15-112-050	CHUM	232						
HS200403-IVI15-112-051	CHUM	242						
HS200403-IVI15-112-052	CHUM	246						
HS200403-IVI15-112-053	CHUM	218						
HS200403-IVI15-112-054	CHUM	223						
HS200403-IVI15-112-055	CHUM	236						
HS200403-IVI15-112-056	CHUM	242						
HS200403-IVI15-112-057	CHUM	234						
HS200403-IVI15-112-058	CHUM	232						
HS200403-IVI15-112-059	CHUM	232						
HS200403-IVI15-112-060	CHUM	228						
HS200403-IVI15-112-061	CHUM	232						
HS200403-IVI15-112-062	CHUM	232						

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-IVI15-112-063	CHUM	236						
HS200403-IVI15-112-064	CHUM	234						
HS200403-IVI15-112-065	CHUM	228						
HS200403-IVI15-112-066	CHUM	224						
HS200403-IVI15-112-067	CHUM	260						
HS200403-IVI15-112-068	CHUM	233						
HS200403-IVI15-112-069	CHUM	226						
HS200403-IVI15-112-070	CHUM	240						
HS200403-IVI15-112-071	CHUM	242						
HS200403-IVI15-112-072	CHUM	230						
HS200403-IVI15-112-073	CHUM	230						
HS200403-IVI15-112-074	CHUM	242						
HS200403-IVI15-112-075	CHUM	228						
HS200403-IVI15-112-076	CHUM	220						
HS200403-IVI15-112-077	CHUM	231						
HS200403-IVI15-112-078	CHUM	230						
HS200403-VI05-112-001	CHUM	250	160					
HS200403-IVI11-115-001	COHO	300	293	M	1.68			
HS200403-IVI11-115-002	COHO	275	230	M	0.23			
HS200403-IVI11-115-003	COHO	315	348	M	12.26			
HS200403-IVI11-115-004	COHO	330	406	M	5.88			
HS200403-IVI11-115-005	COHO	370	562	F	0.46			
HS200403-IVI11-115-006	COHO	278	226	M	1.07			
HS200403-IVI11-115-007	COHO	272	223	M	0.36			
HS200403-IVI11-115-008	COHO	331	457	F	39.77			
HS200403-IVI11-115-009	COHO	328	367	M	5.36			
HS200403-IVI11-115-010	COHO	278	236	M	3.5			
HS200403-IVI11-115-011	COHO	309	329	M	2.87			
HS200403-IVI11-115-012	COHO	324	365	F	4.35			AD
HS200403-IVI11-115-013	COHO	335	429	F	1.57			
HS200403-IVI11-115-014	COHO	345	448	M	9.25			AD
HS200403-IVI11-115-015	COHO	290	276	M	0.63			
HS200403-IVI11-115-016	COHO	293	260	M	9.25			
HS200403-IVI11-115-017	COHO	338	460	M	6.34			
HS200403-IVI11-115-018	COHO	350	483	M	10.11			
HS200403-IVI11-115-019	COHO	318	340	M	6.16			AD
HS200403-IVI11-115-020	COHO	313	356	F	12.09			
HS200403-IVI11-115-021	COHO	321	390	M	7.56			
HS200403-IVI11-115-022	COHO	307	353	M	4.7			

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-IVI11-115-023	COHO	302	288	F	0.39			
HS200403-IVI11-115-024	COHO	320	346	M	0.39			
HS200403-IVI11-115-025	COHO	295	274	M	0.71			
HS200403-IVI11-115-026	COHO	307	320	M	3.75			
HS200403-IVI11-115-027	COHO	304	323	F	0.6			
HS200403-IVI11-115-028	COHO	310	335	M	2.86			
HS200403-IVI11-115-029	COHO	239	143	M	1.12			
HS200403-IVI11-115-030	COHO	283	256	F	2.95			
HS200403-IVI11-115-031	COHO	321						
HS200403-IVI11-115-032	COHO	317						
HS200403-IVI11-115-033	COHO	320						
HS200403-IVI11-115-034	COHO	273						
HS200403-IVI11-115-035	COHO	304						
HS200403-IVI11-115-036	COHO	305						
HS200403-IVI11-115-037	COHO	310						
HS200403-IVI11-115-038	COHO	275						
HS200403-IVI11-115-039	COHO	335						
HS200403-IVI11-115-040	COHO	265						
HS200403-IVI11-115-041	COHO	398						
HS200403-IVI11-115-042	COHO	321						
HS200403-IVI11-115-043	COHO	300						
HS200403-IVI11-115-044	COHO	316						
HS200403-IVI11-115-045	COHO	305						
HS200403-IVI11-115-046	COHO	311						
HS200403-IVI11-115-047	COHO	315						
HS200403-IVI11-115-048	COHO	259						
HS200403-IVI11-115-049	COHO	318						
HS200403-IVI11-115-050	COHO	272						
HS200403-IVI11-115-051	COHO	298						
HS200403-IVI11-115-052	COHO	346						
HS200403-IVI11-115-053	COHO	281						
HS200403-IVI11-115-054	COHO	298						
HS200403-IVI11-115-055	COHO	308						
HS200403-IVI11-115-056	COHO	298						
HS200403-IVI11-115-057	COHO	308						
HS200403-IVI11-115-058	COHO	302						
HS200403-IVI11-115-059	COHO	342						
HS200403-IVI11-115-060	COHO	292						
HS200403-IVI11-115-061	COHO	286						

Table 3. Biological data collected for each salmon caught on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Fish Number	Species	Fork Length (mm)	Whole Body Weight (g wet)	Sex	Stomach Content Weight (g wet)	CWT age	CWT	Fin Clip
HS200403-IVI11-115-062	COHO	309						
HS200403-IVI11-115-063	COHO	274						
HS200403-IVI11-115-064	COHO	313						
HS200403-IVI11-115-065	COHO	267						
HS200403-IVI11-115-066	COHO	260						
HS200403-IVI11-115-067	COHO	303						
HS200403-IVI11-115-068	COHO	305						
HS200403-IVI11-115-069	COHO	320						
HS200403-IVI11-115-070	COHO	330						
HS200403-IVI11-115-071	COHO	296						
HS200403-IVI11-115-072	COHO	301						
HS200403-IVI11-115-073	COHO	296						
HS200403-IVI11-115-074	COHO	333						
HS200403-IVI12-115-001	COHO	292	248	M	1.13			AD
HS200403-IVI12-115-002	COHO	298	310	F	0.88			
HS200403-IVI12-115-003	COHO	288	271	F	5.66			
HS200403-IVI14-115-001	COHO	403	740	F	0.69			
HS200403-IVI14-115-002	COHO	345	552	M	43.76			
HS200403-IVI14-115-003	COHO	370	623	F	32.28			
HS200403-IVI14-115-004	COHO	322	349	M	0.93			
HS200403-IVI14-115-005	COHO	394	730	M	57.68			
HS200403-IVI14-115-006	COHO	330	437	F	33.76			AD
HS200403-IVI14-115-007	COHO	255	189	M	10.52			
HS200403-IVI14-115-008	COHO	298	279	M	6.21			
HS200403-IVI14-115-009	COHO	302	315	M	8.84			
HS200403-IVI14-115-010	COHO	306	337	M	23.03			
HS200403-IVI14-115-011	COHO	320	342	M	11.49			
HS200403-IVI14-115-012	COHO	268	212	M	0.85			
HS200403-IVI14-115-013	COHO	294	321	M	26.76			
HS200403-IVI14-115-014	COHO	325	383	M	8.78			
HS200403-VI05-115-001	COHO	337	438	F	7.91			AD
HS200403-ISEA01-118-001	SOCKEYE	243	152	F	0.5			
HS200403-ISEA01-118-002	SOCKEYE	212	88	M	0.55			
HS200403-VI01-118-001	SOCKEYE	194	70	M	0.78			
HS200403-VI01-118-002	SOCKEYE	212	94	M	0.66			
HS200403-VI01-118-003	SOCKEYE	201	78	M	0.59			
HS200403-VI01-118-004	SOCKEYE	202	89	M	2.81			
HS200403-VI01-118-005	SOCKEYE	206	88	M	1.34			
HS200403-VI05-118-001	SOCKEYE	213	105	F	2.19			

Table 4. Physical oceanographic data collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Date UTC	Time UTC	Latitude (°N)	Longitude (°W)	Bottom Depth (m)	SST (°C)	SSS (ppt)	NO3 µmoles/L	Si µmoles/L	PO4 µmoles/L	Chl A µg/L
HS200403-IVI01	TREVOR CH	IVI	13-Feb-04	15:12	48.839	125.156	75	8.12	28.58	10.8	20.9	1.14	2.16
HS200403-VI01	OFF BARKLEY SD, VI	VI	14-Feb-04	17:15	48.780	125.272	81	8.26	29.69	8.8	17	0.94	2.27
HS200403-VI02	AMPHITRITE BK, VI	VI	14-Feb-04	20:05	48.895	125.605	80	8.35	29.74	5.9	11.1	0.67	3.36
HS200403-VI03	LONG BEACH, VI	VI	14-Feb-04	21:57	48.974	125.791	38	8.34	29.78	5	9.8	0.64	4.44
HS200403-VI04	LENNARD IS, VI	VI	14-Feb-04	23:49	49.038	126.009	43	8.62	30.34	7.5	13.7	0.81	1.7
HS200403-VI05	OFF CLAYQUOT SD, VI	VI	15-Feb-04	01:35	49.144	126.237	58	8.55	30.37	7.7	14.3	0.88	3.07
HS200403-EP01	ESTEVAN PT	VI	15-Feb-04	15:23	49.340	126.554	50	8.16	29.9	8.9	15.6	1.05	3.72
HS200403-EP02	ESTEVAN PT	VI	15-Feb-04	16:43	49.316	126.605	85	8.45	30.52	7.9	13.5	0.92	3.73
HS200403-EP03	ESTEVAN PT	VI	15-Feb-04	18:11	49.281	126.681	110	8.67	31.24	9.7	15.7	1.13	2.18
HS200403-EP04	ESTEVAN PT	VI	15-Feb-04	20:08	49.243	126.756	120	8.7	31.48	9.3	14.2	1.07	1.74
HS200403-EP05	ESTEVAN PT	VI	15-Feb-04	21:39	49.207	126.831	142	8.78	31.54	8.2	13.5	0.96	1.41
HS200403-EP06	ESTEVAN PT	VI	15-Feb-04	23:07	49.171	126.908	183	8.76	31.5	8.5	12.4	1.04	0.98
HS200403-EP07	ESTEVAN PT	VI	16-Feb-04	00:40	49.135	126.984	460	8.67	31.48	9.9	15.8	1.13	1.89
HS200403-EP08	ESTEVAN PT	VI	16-Feb-04	02:17	49.035	127.165	800	8.66	32.23	5.6	6.9	0.86	0.73
HS200403-IVI02	TAHSIS INLET, ESPERANZA	IVI	16-Feb-04	15:10	49.797	126.653	123	8.23	27.16	15	32.5	1.67	0.64
HS200403-IVI03	TAHSIS INLET, ESPERANZA	IVI	16-Feb-04	16:50	49.897	126.657	180	8.5	28.12	14.8	32	1.59	0.87
HS200403-IVI04	HECATE CH, ESPERANZA	IVI	16-Feb-04	18:47	49.864	126.743	220	8.48	29.15	11	20.5	1.18	0.64
HS200403-IVI05	ZEBALLOS INLET, ESPERANZA	IVI	16-Feb-04	20:24	49.948	126.811	150	8.3	26.2	12.6	24.7	1.33	0.91
HS200403-IVI06	ESPERANZA INLET	IVI	16-Feb-04	21:46	49.895	126.799	226	8.44	27.92	10.8	20.5	1.21	0.7
HS200403-IVI07	ESPERANZA INLET	IVI	16-Feb-04	23:35	49.847	126.972	160	8.12	29.4	10.4	20.2	1.16	0.73
HS200403-IVI08	ESPERANZA INLET	IVI	17-Feb-04	01:34	49.922	126.928	270	8.15	28.65	10.7	22.4	1.17	0.93
HS200403-IVI11	QUATSINO SD	IVI	18-Feb-04	15:05	50.470	127.902	210	8.26	28.7	12.4	23.6	1.29	0.46
HS200403-IVI12	QUATSINO SD	IVI	18-Feb-04	16:35	50.471	127.802	124	8.22	28.97	12.5	23.5	1.29	0.32
HS200403-IVI13	QUATSINO SD	IVI	18-Feb-04	18:28	50.506	127.594	152	8.07	28.14	13.7	26.6	1.42	0.19
HS200403-IVI14	QUATSINO SD	IVI	18-Feb-04	22:27	50.467	127.950	210	8.45	29.55	10.7	19.1	1.19	0.44
HS200403-IVI15	QUATSINO SD	IVI	18-Feb-04	23:20	50.424	127.955	110	8.44	30.37	9.1	15	1.13	0.51
HS200403-VI06	TOPKNOT PT, VI	VI	19-Feb-04	01:40	50.490	128.259	44	8.66	31.2	9.9	17.1	1.05	0.83
HS200403-DE01	DIXON ENTRANCE - McINTRE B	DE	20-Feb-04	14:59	54.175	131.858	70	6.47	31.69	17.8	30.4	1.49	0.32
HS200403-DE02	DIXON ENTRANCE - McINTRE B	DE	20-Feb-04	16:29	54.160	132.009	58	6.5	31.61	14.8	24.8	1.37	0.37
HS200403-DE03	DIXON ENTRANCE - WIAH PT	DE	20-Feb-04	18:16	54.151	132.213	60	6.55	31.56	17.6	29.5	1.58	0.34

Table 4. Physical oceanographic data collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Date UTC	Time UTC	Latitude (°N)	Longitude (°W)	Bottom Depth (m)	SST (°C)	SSS (ppt)	NO3 µmoles/L	Si µmoles/L	PO4 µmoles/L	Chl A µg/L
HS200403-DE04	DIXON ENTRANCE - KLASHWUN PT	DE	20-Feb-04	19:58	54.166	132.429	88	6.64	31.73	16.9	27.6	1.53	0.32
HS200403-DE05	DIXON ENTRANCE - KLASHWUN PT	DE	20-Feb-04	21:37	54.179	132.640	65	6.33	31.43	17.4	30.3	1.61	0.35
HS200403-DE06	DIXON ENTRANCE - LANGARA IS	DE	20-Feb-04	23:17	54.194	132.879	94	6.68	31.72	16.5	32.5	1.58	0.31
HS200403-ISEA01	CLARENCE ST	ISEA	21-Feb-04	15:04	55.462	132.021	442	6.26	30.63	17.9	31.6	1.63	0.31
HS200403-ISEA02	CLARENCE ST	ISEA	21-Feb-04	17:04	55.594	132.230	530	6.35	30.59	17.8	31.6	1.62	0.3
HS200403-ISEA03	CLARENCE ST	ISEA	21-Feb-04	19:01	55.761	132.325	472	6.26	30.58	18.1	32	1.55	0.28
HS200403-ISEA04	CLARENCE ST	ISEA	21-Feb-04	21:33	55.894	132.458	250	6.02	30.28	18.5	33.3	1.64	0.23
HS200403-ISEA05	CLARENCE ST	ISEA	21-Feb-04	23:21	55.959	132.667	399	6.05	30.41	19.2	35.5	1.69	0.2
HS200403-ISEA06	CLARENCE ST	ISEA	22-Feb-04	01:35	56.149	132.760	279	5.73	30.13	19.5	35.6	1.71	0.3
HS200403-ISEA07	SUMNER ST	ISEA	22-Feb-04	15:12	56.380	133.349	260	6	30.85	20.6	37.4	1.82	0.15
HS200403-ISEA08	STIKINE ST	ISEA	23-Feb-04	03:28	56.433	132.571	190	5.74	30.07	20.8	39.1	1.77	0.25
HS200403-ISEA09	SUMNER ST	ISEA	23-Feb-04	15:01	56.385	133.524	240	6.08	31	20.3	35.8	1.79	0.13
HS200403-ISEA10	SUMNER ST	ISEA	23-Feb-04	17:32	56.342	133.776	310	6.08	31.04	20.3	35.7	1.78	0.15
HS200403-ISEA11	SUMNER ST	ISEA	23-Feb-04	19:12	56.285	133.790	307	6.21	31.27	20.3	34.9	1.79	0.13
HS200403-ISEA12	SUMNER ST	ISEA	23-Feb-04	21:16	56.208	133.823	247	6.22	31.28	20.3	34.7	1.77	0.12
HS200403-ISEA13	SUMNER ST	ISEA	23-Feb-04	22:59	56.113	133.815	255	6.27	31.35	20.3	34.6	1.81	0.13
HS200403-ISEA14	SUMNER ST	ISEA	24-Feb-04	00:39	56.002	133.839	300	6.3	31.44	20	34.6	1.79	0.12
HS200403-FI12	FORRESTER IS	SEA	24-Feb-04	14:37	54.608	134.904	2609	6.88	32.12	13.9	20	1.41	0.31
HS200403-FI11	FORRESTER IS	SEA	24-Feb-04	16:24	54.639	134.632	2368	7.41	32.34	10.3	12	1.13	0.39
HS200403-FI10	FORRESTER IS	SEA	24-Feb-04	18:04	54.667	134.363	2145	7.49	32.28	10.6	12.7	1.21	0.33
HS200403-FI09	FORRESTER IS	SEA	24-Feb-04	19:38	54.691	134.099	220	7.61	32.24	10	12.3	1.14	0.34
HS200403-FI08	FORRESTER IS	SEA	24-Feb-04	20:46	54.704	133.968	205	7.8	32.21	10.6	13.2	1.17	0.27
HS200403-FI07	FORRESTER IS	SEA	24-Feb-04	21:42	54.714	133.838	228	7.79	32.2	10.5	13.1	1.2	0.34
HS200403-FI06	FORRESTER IS	SEA	24-Feb-04	22:38	54.726	133.707	225	7.71	32.22	10.1	12.2	1.14	0.35
HS200403-FI05	FORRESTER IS	SEA	24-Feb-04	23:36	54.740	133.574	198	6.6	31.64	16.5	26.3	1.55	0.28
HS200403-FI04	FORRESTER IS	SEA	25-Feb-04	00:43	54.751	133.448	148	6.6	31.64	15.9	25.8	1.41	0.3
HS200403-FI03	FORRESTER IS	SEA	25-Feb-04	03:49	54.765	133.288	120	6.43	31.53	18.3	30.7	1.66	0.29
HS200403-SEA01	DALL IS	SEA	25-Feb-04	14:57	54.942	133.226	161	6.35	31.5	18	30.8	1.65	0.29
HS200403-SEA02	DALL IS	SEA	25-Feb-04	16:33	54.868	133.152	116	6.34	31.45	16	27	1.42	0.29
HS200403-FI02	FORRESTER IS	SEA	25-Feb-04	18:08	54.775	133.185	200	6.34	31.45	18.6	31.4	1.69	0.34

Table 4. Physical oceanographic data collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Date UTC	Time UTC	Latitude (°N)	Longitude (°W)	Bottom Depth (m)	SST (°C)	SSS (ppt)	NO3 µmoles/L	Si µmoles/L	PO4 µmoles/L	Chl A µg/L
HS200403-FI01	FORRESTER IS	SEA	25-Feb-04	20:00	54.785	133.042	122	6.33	31.42	19	32.4	1.74	0.26
HS200403-SEA03	DALL IS	SEA	25-Feb-04	21:34	54.712	132.928	169	6.32	31.34	18.9	32.3	1.73	0.28
HS200403-SEA04	DALL IS	SEA	25-Feb-04	23:50	54.625	132.802	140	6.33	31.43	18	31.5	1.66	0.39
HS200403-ISEA15	C MUZON	ISEA	26-Feb-04	01:39	54.624	132.601	123	6.33	31.36	18.9	32.2	1.71	0.26
HS200403-T13	TRIANGLE IS	VI	27-Feb-04	14:36	50.311	130.337	2014	7.82	32.43	9	10.5	1.08	0.37
HS200403-T12	TRIANGLE IS	VI	27-Feb-04	16:13	50.383	130.160	1832	8.56	31.97	8.2	10.4	1.02	0.48
HS200403-T11	TRIANGLE IS	VI	27-Feb-04	17:28	50.459	129.994	220	8.69	32.02	6.4	8.4	0.91	1.17
HS200403-T10	TRIANGLE IS	VI	27-Feb-04	18:45	50.542	129.820	2300	8.71	32	7	10	1.01	0.86
HS200403-T09	TRIANGLE IS	VI	27-Feb-04	20:01	50.621	129.652	200	8.58	32.14	6.2	8.5	0.88	0.94
HS200403-T08	TRIANGLE IS	VI	27-Feb-04	21:20	50.702	129.483	1800	8.35	32.37	7.3	9.6	1	0.64
HS200403-T07	TRIANGLE IS	VI	27-Feb-04	23:02	50.820	129.217	90	8.71	31.79	7.4	10	0.96	1.31
HS200403-T06	TRIANGLE IS	QCSD	28-Feb-04	01:36	50.933	128.999	61	8.64	31.46	8	11.4	1.01	1.27
HS200403-T05	TRIANGLE IS	QCSD	28-Feb-04	14:59	51.000	128.869	63	8.63	31.56	7.3	9.7	0.94	1.75
HS200403-T04	TRIANGLE IS	QCSD	28-Feb-04	16:28	51.076	128.736	62	7.88	31.39	11.7	19.7	1.22	0.71
HS200403-T03	TRIANGLE IS	QCSD	28-Feb-04	17:56	51.142	128.603	140	7.9	31.35	13.2	22.1	1.37	0.56
HS200403-T02	TRIANGLE IS	QCSD	28-Feb-04	20:00	51.208	128.467	190	7.91	31.3	10.2	15.9	1.14	0.34
HS200403-T01	TRIANGLE IS	QCSD	28-Feb-04	21:39	51.277	128.334	77	7.98	31.2	14.3	24.9	1.42	0.53

Table 5. Zooplankton data from bongo tows collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Latitude (°N)	Longitude (°W)	Date	Time	Target Depth (m)	Tow Duration	Plankton Weights by Size Faction (g dry / 1000 cu m)				
									8.0mm	1.7mm	1.0mm	0.25mm	Total
HS200403-IVI01	TREVOR CH	IVI	48.840	125.156	13-Feb-04	07:29	68	00:04	0	4.58	0.92	6.41	11.9
HS200403-VI01	OFF BARKLEY SD, VI	VI	48.779	125.272	14-Feb-04	09:24	68	00:09	0	3.29	3.11	6.59	12.99
HS200403-VI02	AMPHITRITE BK, VI	VI	48.894	125.606	14-Feb-04	12:19	60	00:05	0	1.07	2.96	41.65	45.68
HS200403-VI03	LONG BEACH, VI	VI	48.975	125.792	14-Feb-04	14:11	26	00:03	0	5.14	6.28	15.41	26.82
HS200403-VI04	LENNARD IS, VI	VI	49.041	126.010	14-Feb-04	15:56	32	00:03	0	6.8	11.74	12.98	31.51
HS200403-VI05	OFF CLAYQUOT SD, VI	VI	49.147	126.239	14-Feb-04	17:42	47	00:03	0	7.1	4.34	13.41	24.84
HS200403-EP01	ESTEVAN PT	VI	49.341	126.554	15-Feb-04	07:30	39	00:02	0	6.41	7.57	15.14	29.12
HS200403-EP02	ESTEVAN PT	VI	49.318	126.607	15-Feb-04	08:51	72	00:05	0	4.61	4.01	8.82	17.44
HS200403-EP03	ESTEVAN PT	VI	49.282	126.680	15-Feb-04	10:21	98	00:06	0	1.18	1.84	4.59	7.6
HS200403-EP04	ESTEVAN PT	VI	49.246	126.755	15-Feb-04	12:18	108	00:08	0	1.7	2.89	3.4	7.98
HS200403-EP05	ESTEVAN PT	VI	49.208	126.830	15-Feb-04	13:53	133	00:08	0	0	0.32	7.25	7.56
HS200403-EP06	ESTEVAN PT	VI	49.173	126.908	15-Feb-04	15:19	150	00:09	0	0.94	0.78	6.12	7.85
HS200403-EP07	ESTEVAN PT	VI	49.138	126.984	15-Feb-04	16:56	150	00:08	0	1.94	0.75	3.89	6.58
HS200403-EP08	ESTEVAN PT	VI	49.036	127.162	15-Feb-04	18:32	150	00:10	6.08	2.66	3.16	3.67	15.57
HS200403-IVI02	TAHSIS INLET, ESPERANZA	IVI	49.795	126.650	16-Feb-04	07:20	111	00:07	0	0	0.91	2.28	3.19
HS200403-IVI03	TAHSIS INLET, ESPERANZA	IVI	49.898	126.660	16-Feb-04	09:01	150	00:09	0	7.19	2.32	7.89	17.39
HS200403-IVI04	HECATE CH, ESPERANZA	IVI	49.866	126.743	16-Feb-04	10:59	150	00:10	2.82	7.18	3.33	10.63	23.96
HS200403-IVI05	ZEBALLOS INLET, ESPERANZA	IVI	49.948	126.811	16-Feb-04	12:34	131	00:08	0	8.85	9.23	9.23	27.32
HS200403-IVI06	ESPERANZA INLET	IVI	49.895	126.796	16-Feb-04	14:01	150	00:09	0	11.89	14.41	11.33	37.64
HS200403-IVI07	ESPERANZA INLET	IVI	49.847	126.971	16-Feb-04	15:45	140	00:09	3.13	2.95	5.56	5.73	17.37
HS200403-IVI08	ESPERANZA INLET	IVI	49.922	126.927	16-Feb-04	17:48	150	00:09	0	4.98	2.93	5.42	13.33
HS200403-IVI11	QUATSINO SD	IVI	50.469	127.902	18-Feb-04	07:18	150	00:10	0	14.92	7.2	12.21	34.33
HS200403-IVI12	QUATSINO SD	IVI	50.472	127.802	18-Feb-04	08:44	114	00:07	0	2.73	6.36	9.09	18.18
HS200403-IVI13	QUATSINO SD	IVI	50.507	127.594	18-Feb-04	10:38	120	00:08	1.46	7.71	5.83	7.71	22.71
HS200403-IVI14	QUATSINO SD	IVI	50.461	127.966	18-Feb-04	14:44	105	00:07	0	19.92	2.62	6.64	29.18
HS200403-IVI15	QUATSINO SD	IVI	50.422	127.955	18-Feb-04	15:30	95	00:06	0	2.49	5.43	9.05	16.96
HS200403-VI06	TOPKNOT PT, VI	VI	50.490	128.260	18-Feb-04	17:46	34	00:03	0	5.33	6.67	13.33	25.33
HS200403-DE01	DIXON ENTRANCE - McINTRE B	DE	54.175	131.857	20-Feb-04	07:08	58	00:04	0	4.4	2.45	3.43	10.28
HS200403-DE02	DIXON ENTRANCE - McINTRE B	DE	54.161	132.005	20-Feb-04	08:35	48	00:03	0	0	0.73	4.03	4.76

Table 5. Zooplankton data from bongo tows collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Latitude (°N)	Longitude (°W)	Date	Time	Target Depth (m)	Tow Duration	Plankton Weights by Size Faction (g dry / 1000 cu m)				
									8.0mm	1.7mm	1.0mm	0.25mm	Total
HS200403-DE03	DIXON ENTRANCE - WIAH PT	DE	54.150	132.209	20-Feb-04	10:22	45	00:03	0	1.73	2.6	3.46	7.79
HS200403-DE04	DIXON ENTRANCE - KLASHWUN PT	DE	54.165	132.427	20-Feb-04	12:10	86	00:05	0	1.81	9.07	2.54	13.42
HS200403-DE05	DIXON ENTRANCE - KLASHWUN PT	DE	54.180	132.645	20-Feb-04	13:51	51	00:04	0	11.66	5.41	0	17.07
HS200403-DE06	DIXON ENTRANCE - LANGARA IS	DE	54.196	132.879	20-Feb-04	15:26	86	00:05	0	2.36	1.57	4.19	8.12
HS200403-ISEA01	CLARENCE ST	ISEA	55.462	132.018	21-Feb-04	07:18	150	00:07	0	6.33	3.8	3.66	13.79
HS200403-ISEA02	CLARENCE ST	ISEA	55.600	132.232	21-Feb-04	09:18	150	00:10	0	3.09	0.88	1.77	5.74
HS200403-ISEA03	CLARENCE ST	ISEA	55.761	132.323	21-Feb-04	11:17	150	00:10	0	1.73	3.02	3.24	7.99
HS200403-ISEA04	CLARENCE ST	ISEA	55.895	132.457	21-Feb-04	13:46	150	00:09	0	1.17	6.34	5.4	12.92
HS200403-ISEA05	CLARENCE ST	ISEA	55.958	132.669	21-Feb-04	15:36	150	00:08	0	3.91	7.37	5.53	16.81
HS200403-ISEA06	CLARENCE ST	ISEA	56.148	132.758	21-Feb-04	17:49	150	00:08	0	4.81	4.94	4.56	14.31
HS200403-ISEA07	SUMNER ST	ISEA	56.381	133.350	22-Feb-04	07:27	150	00:05	0	12.16	6.68	12.56	31.41
HS200403-ISEA08	STIKINE ST	ISEA	56.433	132.573	22-Feb-04	19:40	150	00:08	0.29	7.48	6.3	8.65	22.73
HS200403-ISEA09	SUMNER ST	ISEA	56.386	133.522	23-Feb-04	07:37	150	00:08	0.19	5.81	5.03	10.26	21.29
HS200403-ISEA10	SUMNER ST	ISEA	56.339	133.779	23-Feb-04	09:46	150	00:09	0	4.28	2.76	2.76	9.8
HS200403-ISEA11	SUMNER ST	ISEA	56.291	133.790	23-Feb-04	11:54	150	00:08	0	3.05	4.02	4.58	11.66
HS200403-ISEA12	SUMNER ST	ISEA	56.208	133.821	23-Feb-04	13:29	150	00:08	0	2.2	3.51	5.05	10.76
HS200403-ISEA13	SUMNER ST	ISEA	56.113	133.782	23-Feb-04	15:13	150	00:09	4.05	2.25	2.02	1.12	9.44
HS200403-ISEA14	SUMNER ST	ISEA	56.000	133.844	23-Feb-04	17:50	150	00:11	3.3	0.97	0.58	1.16	6.02
HS200403-FI12	FORRESTER IS	SEA	54.609	134.899	24-Feb-04	07:04	150	00:10	2.39	5.1	2.23	3.03	12.75
HS200403-FI11	FORRESTER IS	SEA	54.638	134.633	24-Feb-04	08:38	150	00:09	1.2	2.39	1.2	3.14	7.92
HS200403-FI10	FORRESTER IS	SEA	54.669	134.364	24-Feb-04	10:17	150	00:11	1.71	6.12	3.42	2.99	14.24
HS200403-FI09	FORRESTER IS	SEA	54.697	134.098	24-Feb-04	12:02	150	00:10	3.74	2.4	3.34	2.54	12.01
HS200403-FI08	FORRESTER IS	SEA	54.706	133.965	24-Feb-04	13:00	150	00:09	0	3.05	3.05	4.01	10.11
HS200403-FI07	FORRESTER IS	SEA	54.715	133.834	24-Feb-04	13:56	150	00:09	0	1.81	2.72	4.35	8.88
HS200403-FI06	FORRESTER IS	SEA	54.725	133.704	24-Feb-04	14:51	150	00:09	0	4.18	3.13	3.66	10.97
HS200403-FI05	FORRESTER IS	SEA	54.739	133.569	24-Feb-04	15:51	150	00:09	0	3.9	1.06	3.19	8.16
HS200403-FI04	FORRESTER IS	SEA	54.750	133.446	24-Feb-04	16:55	135	00:07	0	0.44	0	4.57	5.01
HS200403-FI03	FORRESTER IS	SEA	54.766	133.286	24-Feb-04	19:37	114	00:07	0	11.41	0.42	0.63	12.47
HS200403-SEA01	DALL IS	SEA	54.942	133.227	25-Feb-04	07:08	145	00:09	0	17.83	1.37	2.47	21.67

Table 5. Zooplankton data from bongo tows collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

Station ID	Station Name	Region	Latitude (°N)	Longitude (°W)	Date	Time	Target Depth (m)	Tow Duration	Plankton Weights by Size Faction (g dry / 1000 cu m)				
									8.0mm	1.7mm	1.0mm	0.25mm	Total
HS200403-SEA02	DALL IS	SEA	54.869	133.153	25-Feb-04	08:42	103	00:07	0	2.22	0	0.68	2.9
HS200403-FI02	FORRESTER IS	SEA	54.776	133.185	25-Feb-04	10:19	150	00:09	0	1.31	0	1.45	2.76
HS200403-FI01	FORRESTER IS	SEA	54.785	133.042	25-Feb-04	12:10	90	00:07	0	3.58	0.51	2.81	6.91
HS200403-SEA03	DALL IS	SEA	54.712	132.928	25-Feb-04	13:45	150	00:09	0	0.79	1.26	2.21	4.25
HS200403-SEA04	DALL IS	SEA	54.628	132.796	25-Feb-04	16:00	122	00:08	0	2.62	1.31	1.46	5.38
HS200403-ISEA15	C MUZON	ISEA	54.623	132.604	25-Feb-04	17:48	107	00:06	0	0.56	0	0.75	1.31
HS200403-T13	TRIANGLE IS	VI	50.308	130.344	27-Feb-04	07:05	150	00:09	9.63	3.61	2.75	2.92	18.91
HS200403-T12	TRIANGLE IS	VI	50.382	130.162	27-Feb-04	08:27	150	00:08	0	5.65	1.66	2.99	10.3
HS200403-T11	TRIANGLE IS	VI	50.458	129.993	27-Feb-04	09:42	150	00:09	3.26	2.41	1.99	3.83	11.5
HS200403-T10	TRIANGLE IS	VI	50.541	129.820	27-Feb-04	10:58	150	00:09	0	3.36	1.83	3.21	8.4
HS200403-T09	TRIANGLE IS	VI	50.621	129.652	27-Feb-04	12:16	150	00:10	0.69	2.76	2.24	3.79	9.48
HS200403-T08	TRIANGLE IS	VI	50.704	129.483	27-Feb-04	13:35	150	00:09	4.61	3.36	1.24	3.24	12.45
HS200403-T07	TRIANGLE IS	VI	50.821	129.217	27-Feb-04	15:10	80	00:06	0	11.03	6.66	5.83	23.52
HS200403-T06	TRIANGLE IS	QCSD	50.932	128.999	27-Feb-04	17:43	48	00:03	0	4.15	11.4	14.51	30.06
HS200403-T05	TRIANGLE IS	QCSD	51.000	128.869	28-Feb-04	07:07	52	00:04	0	4.17	2.65	9.1	15.92
HS200403-T04	TRIANGLE IS	QCSD	51.076	128.738	28-Feb-04	08:35	49	00:04	0	8.28	6.77	12.42	27.46
HS200403-T03	TRIANGLE IS	QCSD	51.142	128.604	28-Feb-04	10:04	126	00:08	0	2.96	0	3.19	6.15
HS200403-T02	TRIANGLE IS	QCSD	51.210	128.467	28-Feb-04	12:12	150	00:07	0	3.77	2.93	4.82	11.51
HS200403-T01	TRIANGLE IS	QCSD	51.277	128.333	28-Feb-04	13:47	64	00:05	5.31	3.8	5.31	10.25	24.67

Table 6. Coded Wire Tag (CWT) data collected on the CCGS W.E. RICKER survey to the Gulf of Alaska, 13/02/2004 - 28/02/2004.

CWT	Fish Number	Species	Recovery Date	Recovery Region	Recovery Fork Length (mm)	Release Area	Release Agency	Hatchery	Brood Year	Date of First Release	Date of Last Release	Age
T040764	HS200403-ISEA09-124-001	CHINOOK	23-Feb-04	ISEA	327	SEAK	ADFG	WHITMAN LAKE	2001	11-May-03	11-May-03	1.1
T185036	HS200403-IVI14-124-001	CHINOOK	18-Feb-04	IVI	208	WCVI	CDFO	H-ROBERTSON CR	2002	28-May-03	02-Jun-03	0.1
T631550	HS200403-IVI11-124-002	CHINOOK	18-Feb-04	IVI	302	UPCR	WDFW	SIMILKAMEEN	2001	28-Apr-03	29-Apr-03	1.1
T631372	HS200403-VI01-124-009	CHINOOK	14-Feb-04	VI	229	HOOD	WDFW	GEORGE ADAMS HATCHRY	2002	15-May-03	15-May-03	0.1

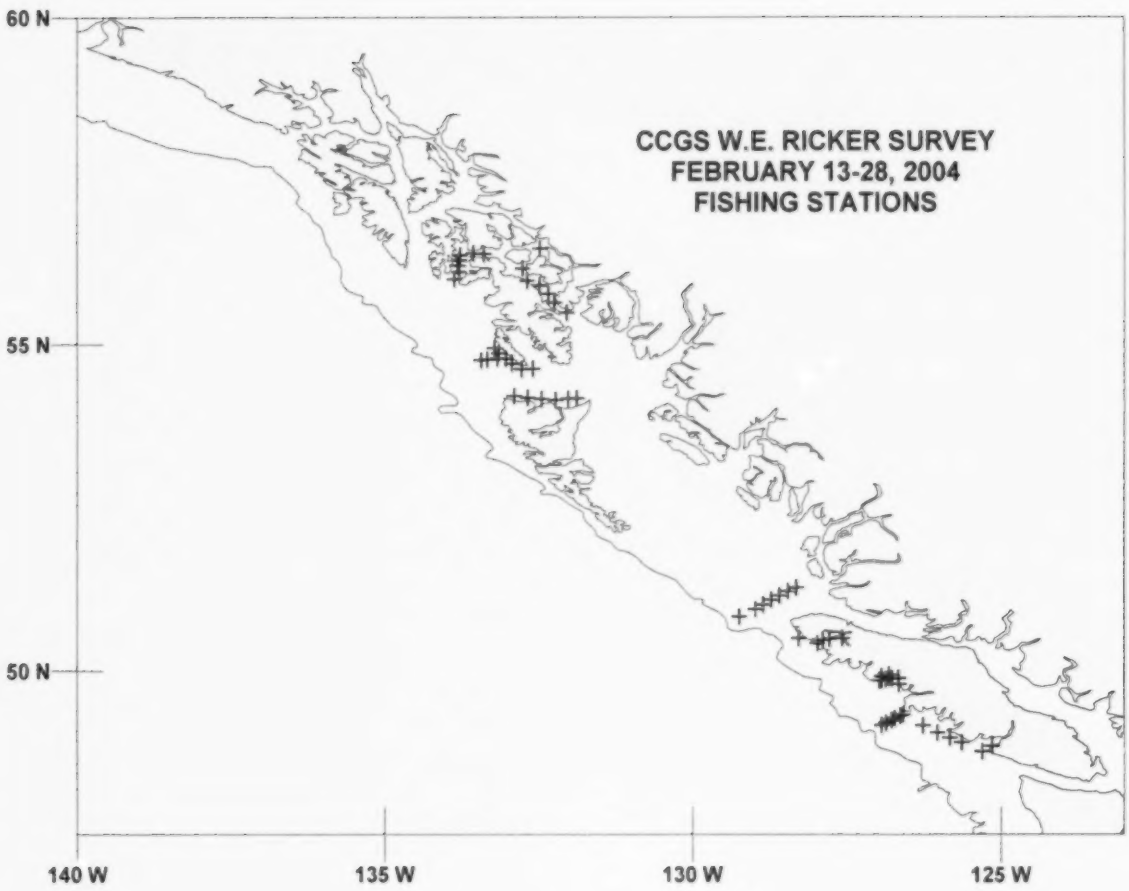

Figure 1. Fishing stations on the CCGS W. E. Ricker survey to the Gulf of Alaska from February 13-28, 2004

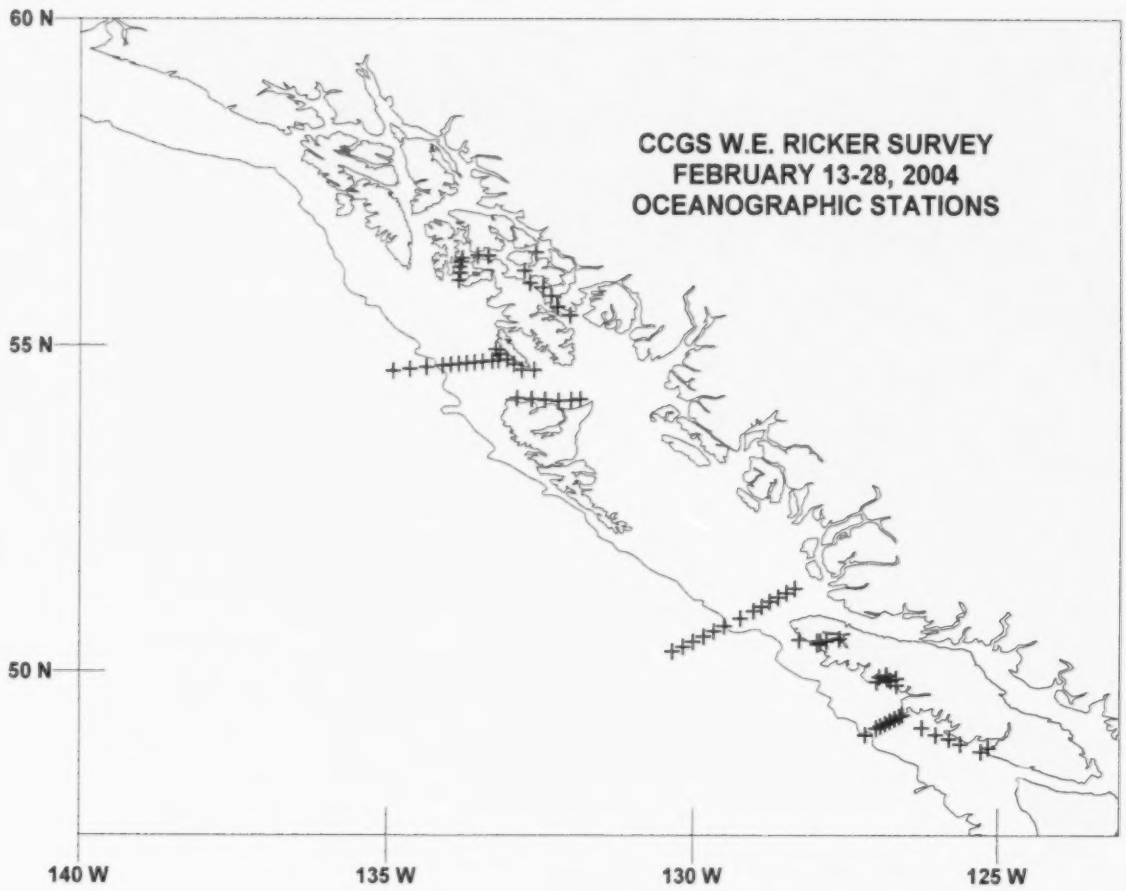

Figure 2. Oceanographic stations on the CCGS W. E. Ricker survey to the Gulf of Alaska from February 13-28, 2004.

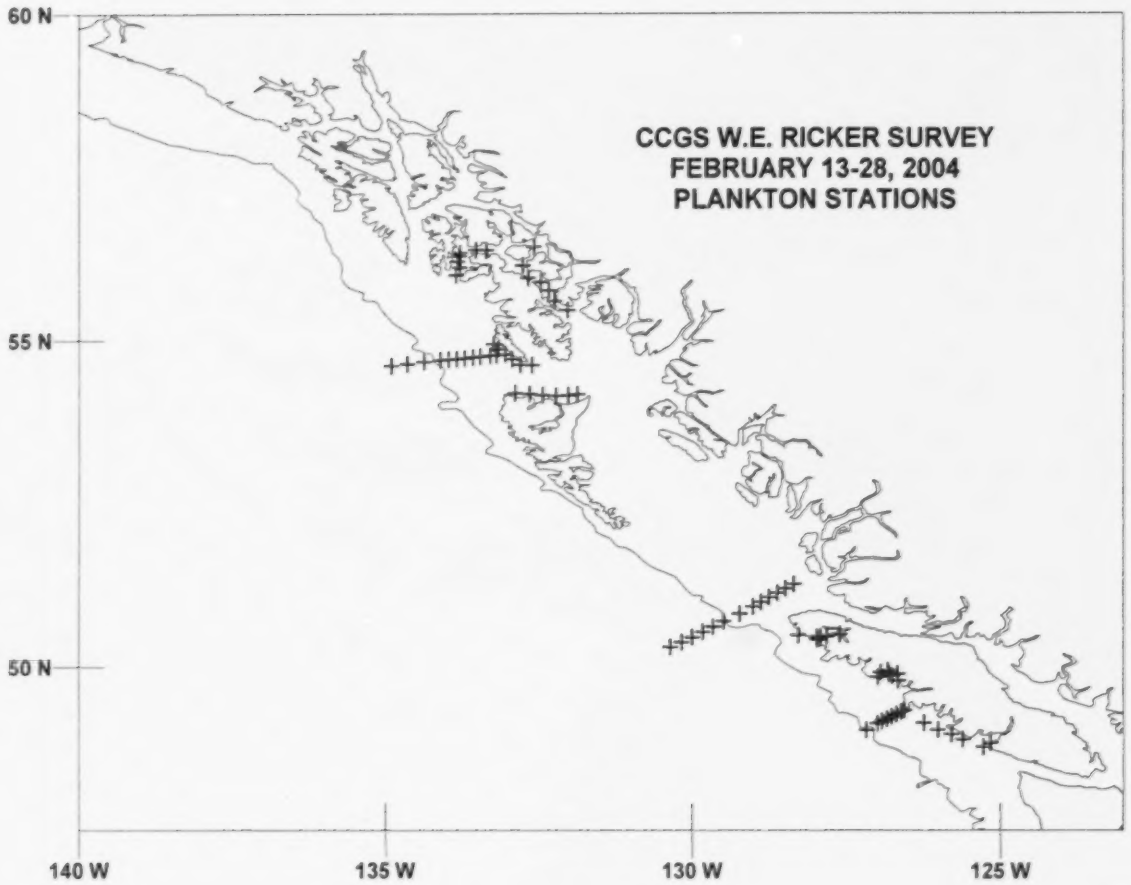

Figure 3. Plankton stations on the CCGS W. E. Ricker survey to the Gulf of Alaska from February 13-28, 2004.

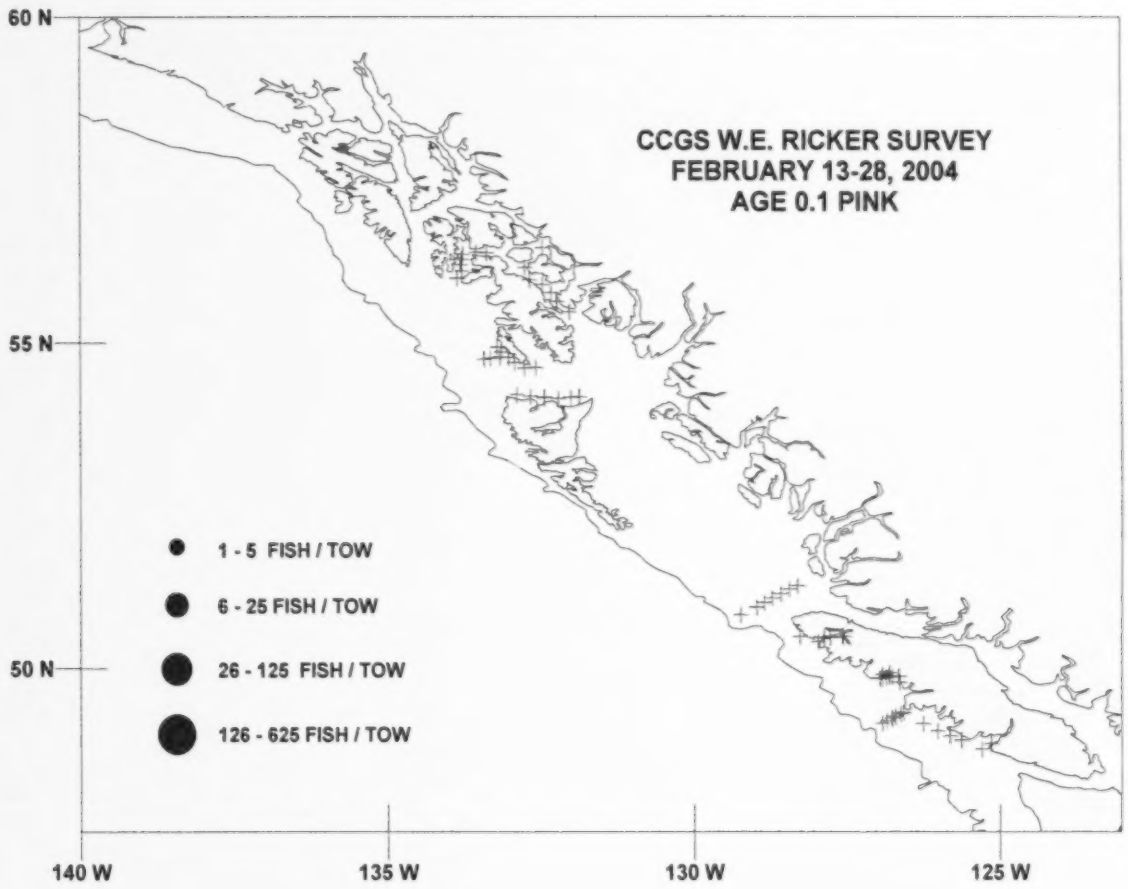

Figure 4. Distribution of age 0.1 juvenile pink salmon catches. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

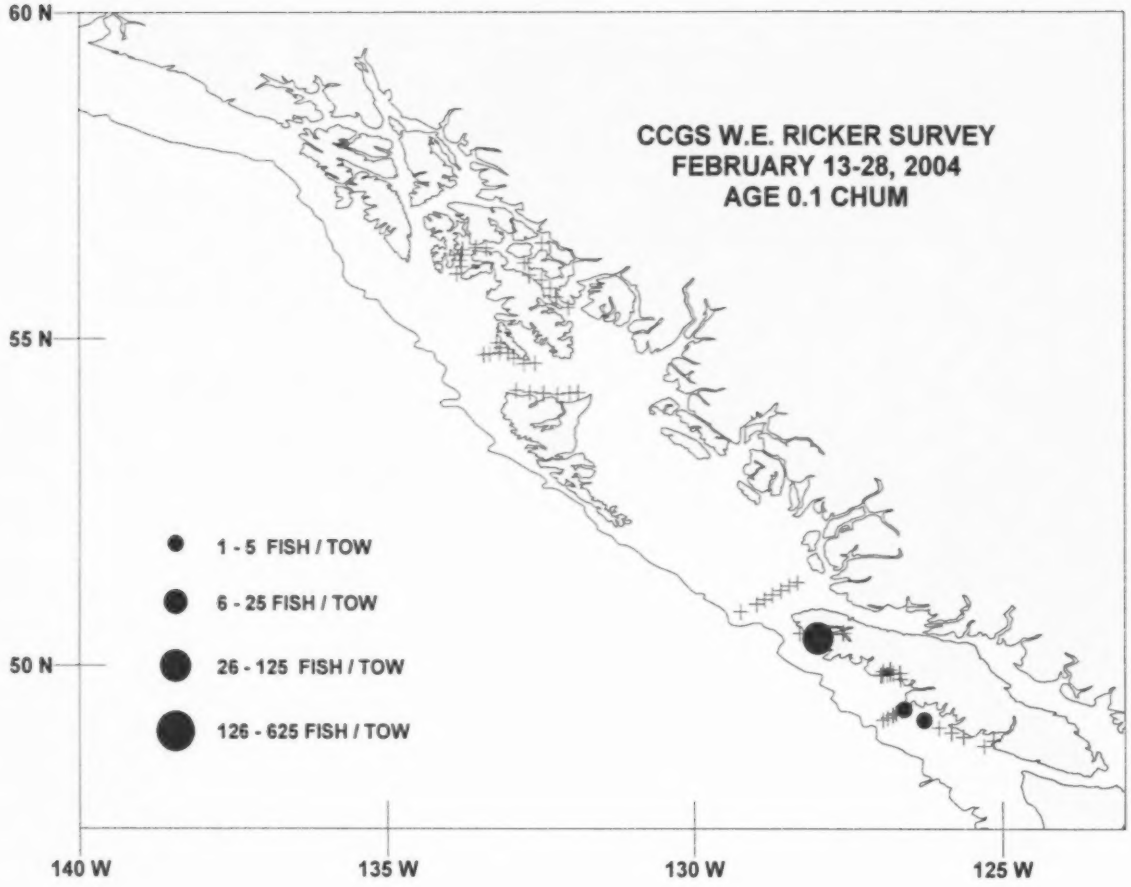

Figure 5. Distribution of age 0.1 juvenile chum salmon catches. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+)

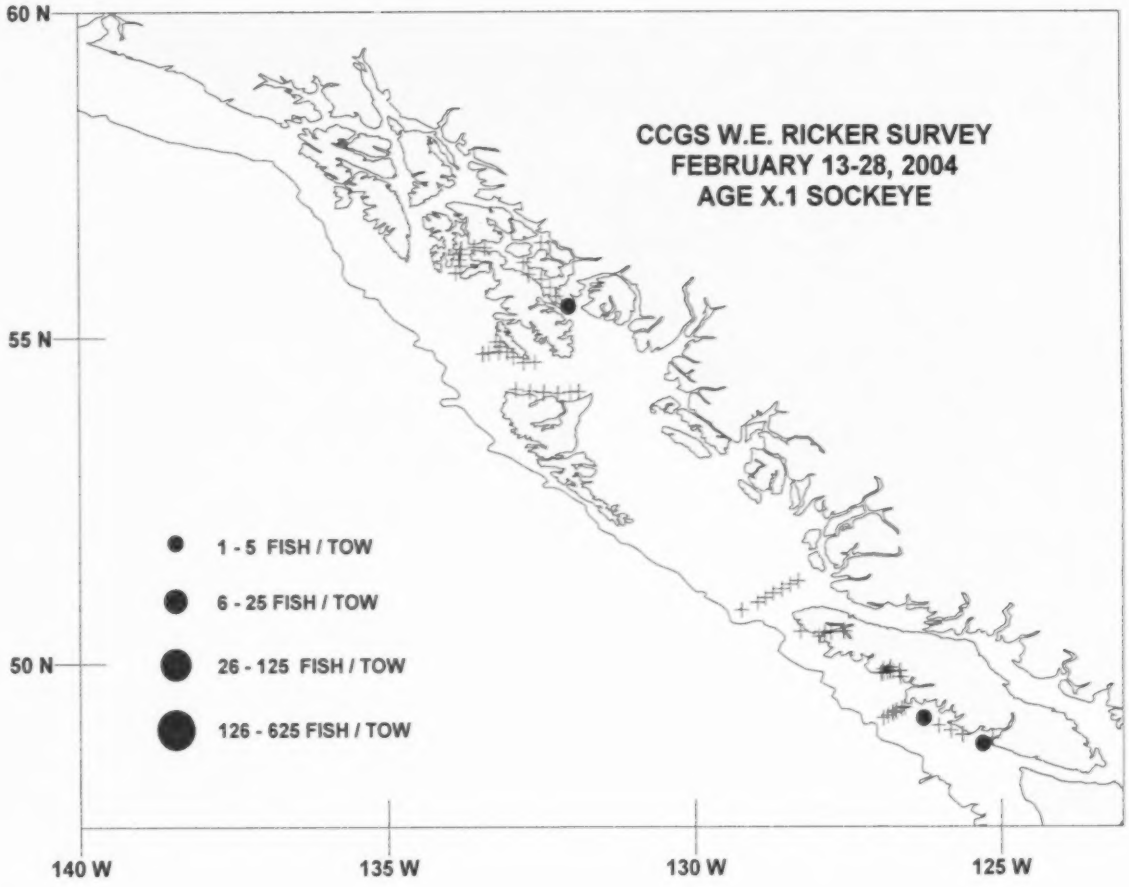

Figure 6. Distribution of age X.1 juvenile sockeye salmon catches. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

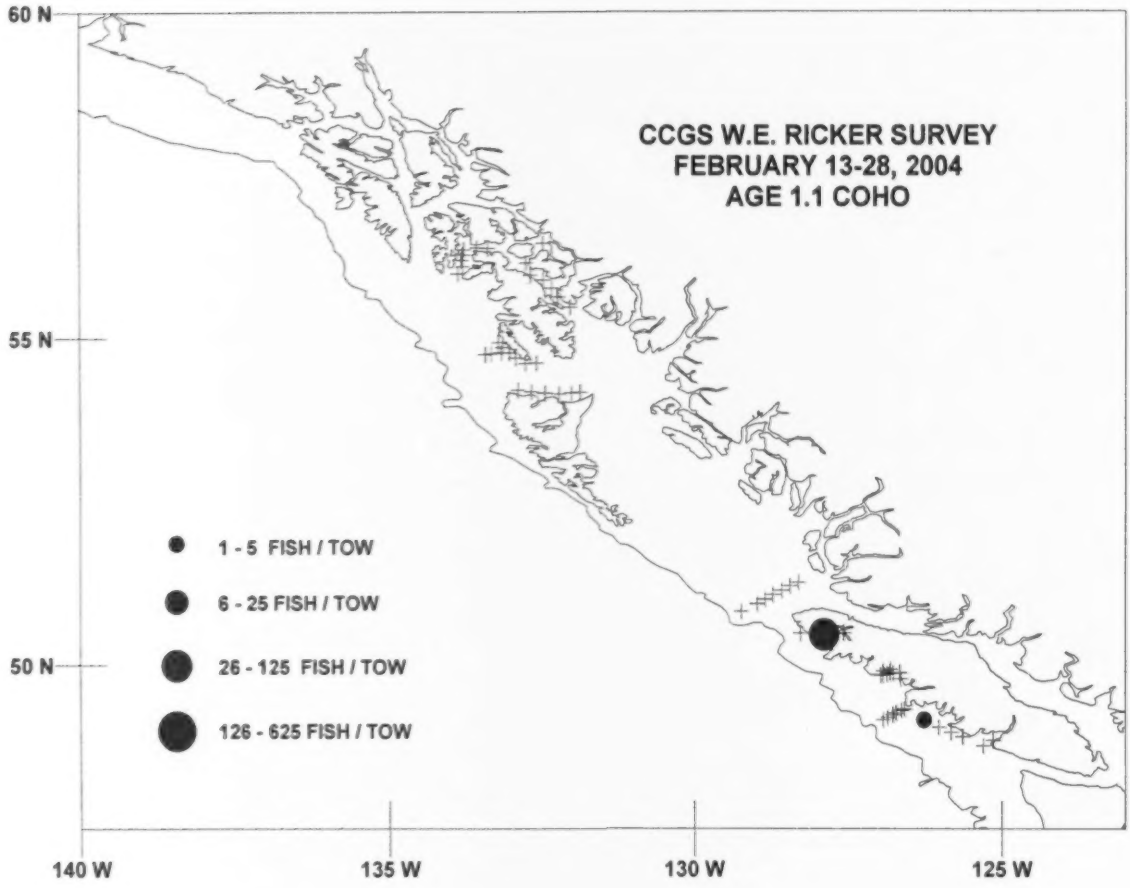

Figure 7. Distribution of age 1.1 juvenile coho salmon catches. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

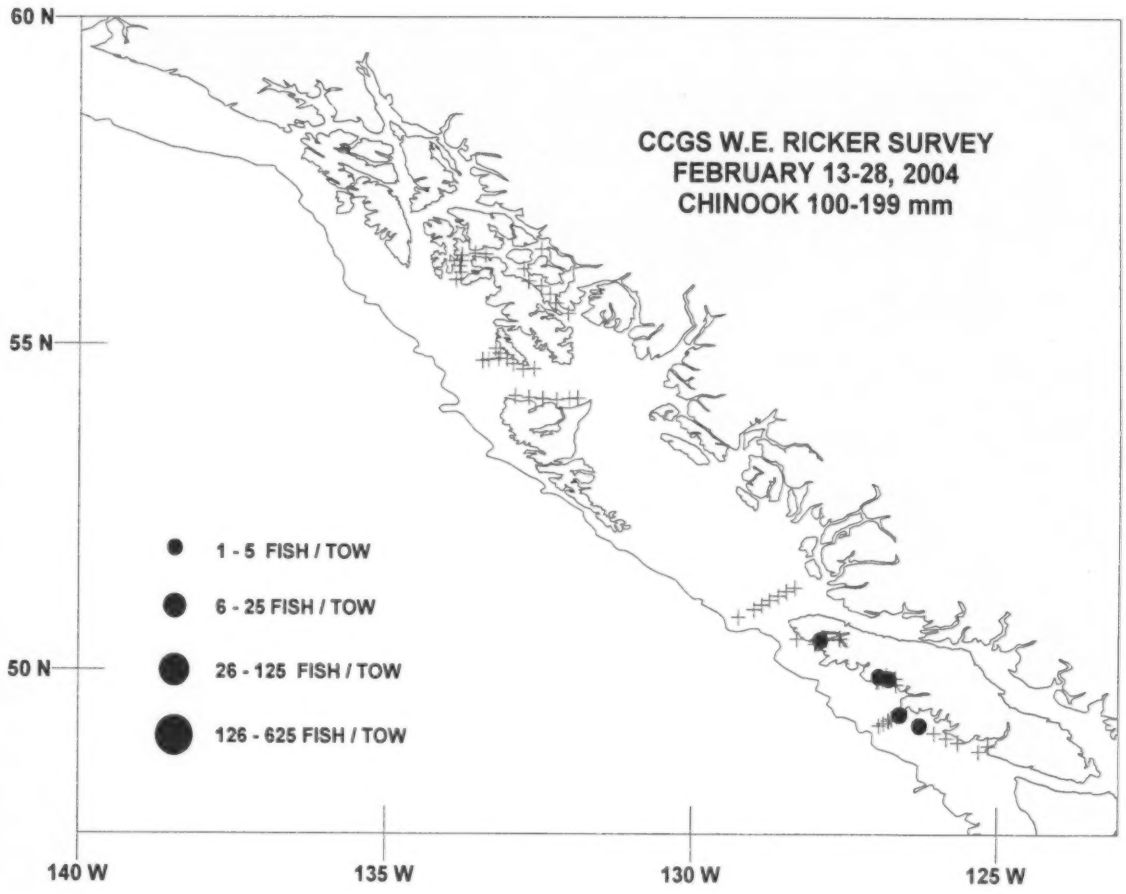

Figure 8. Distribution of catches of chinook salmon from 100 to 199 mm. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

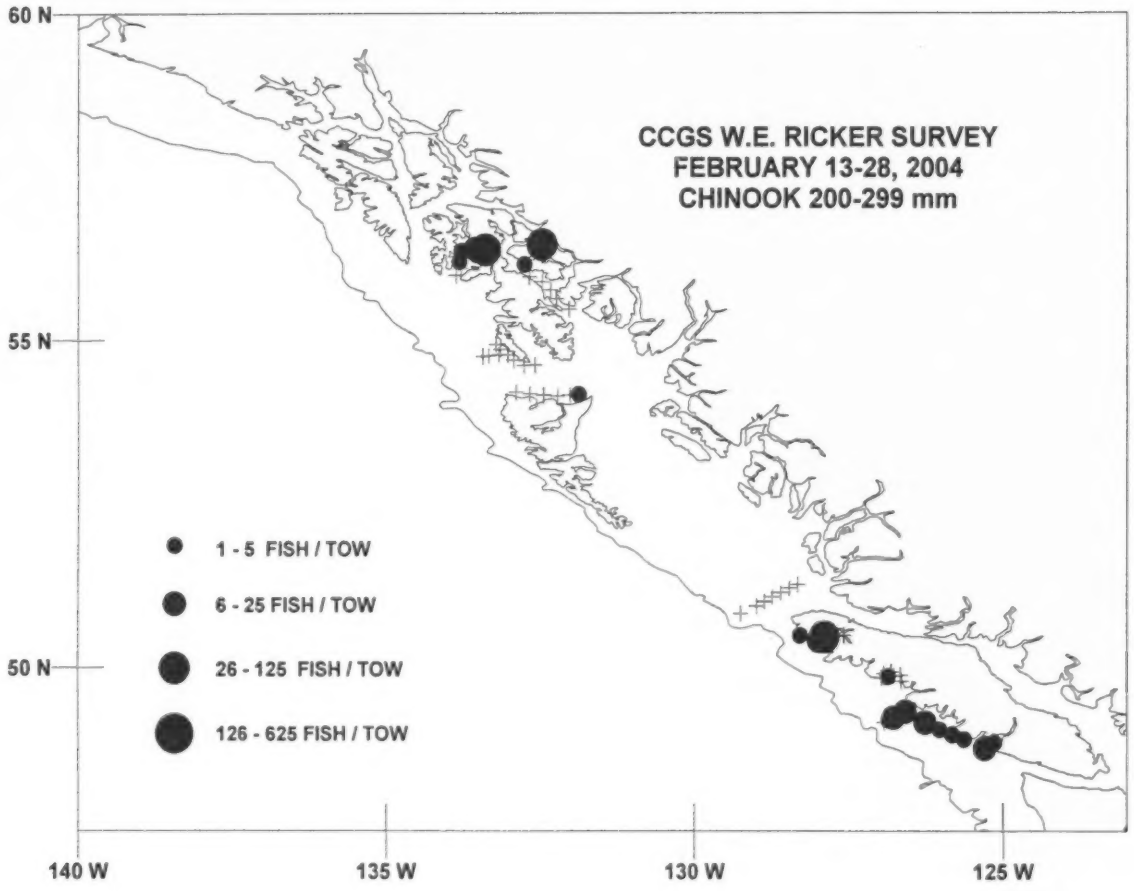

Figure 9. Distribution of catches of chinook salmon from 200 to 299 mm. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

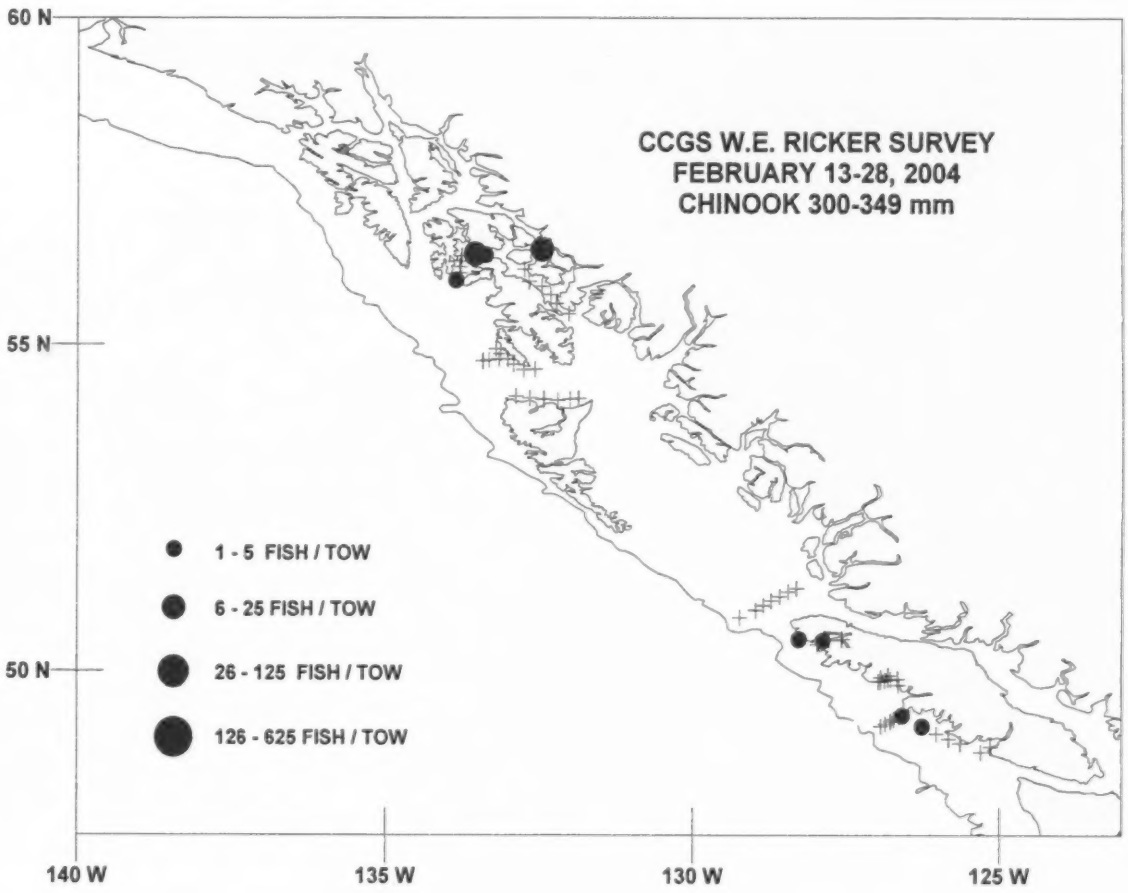

Figure 10. Distribution of catches of chinook salmon from 300 to 349 mm. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

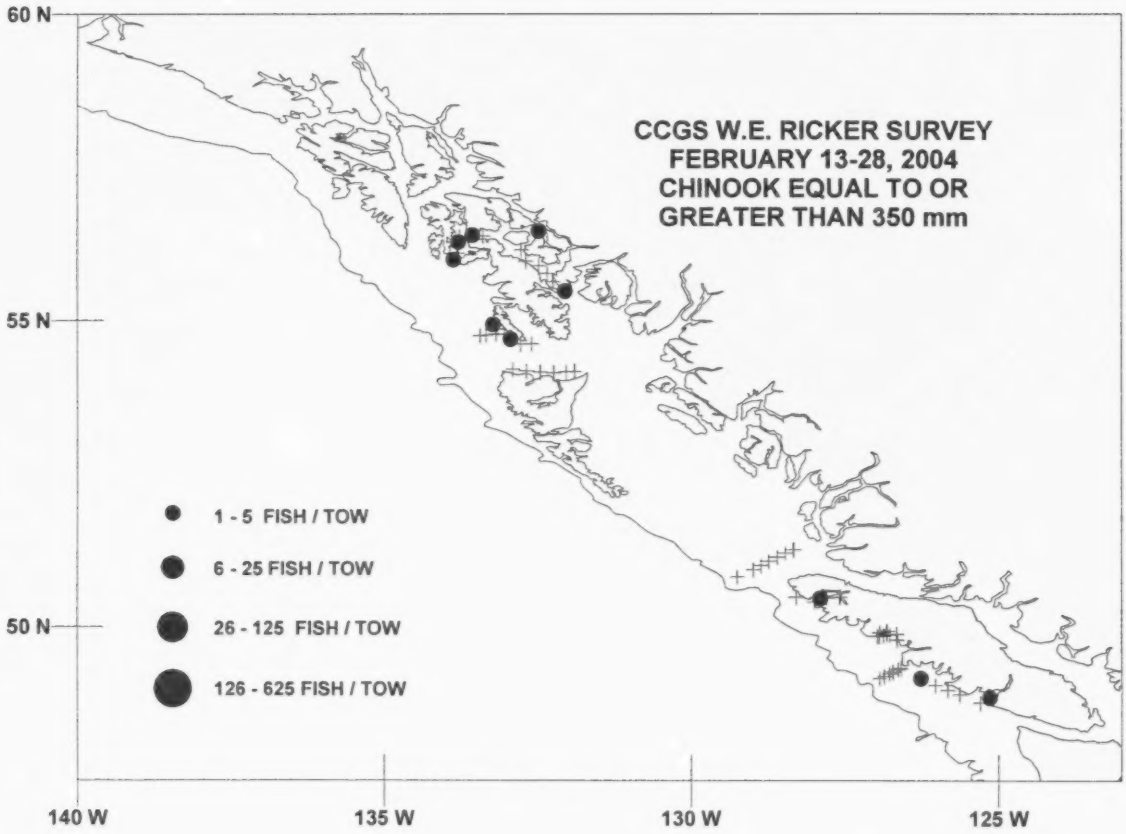

Figure 11. Distribution of catches of chinook salmon equal to or greater than 350 mm. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

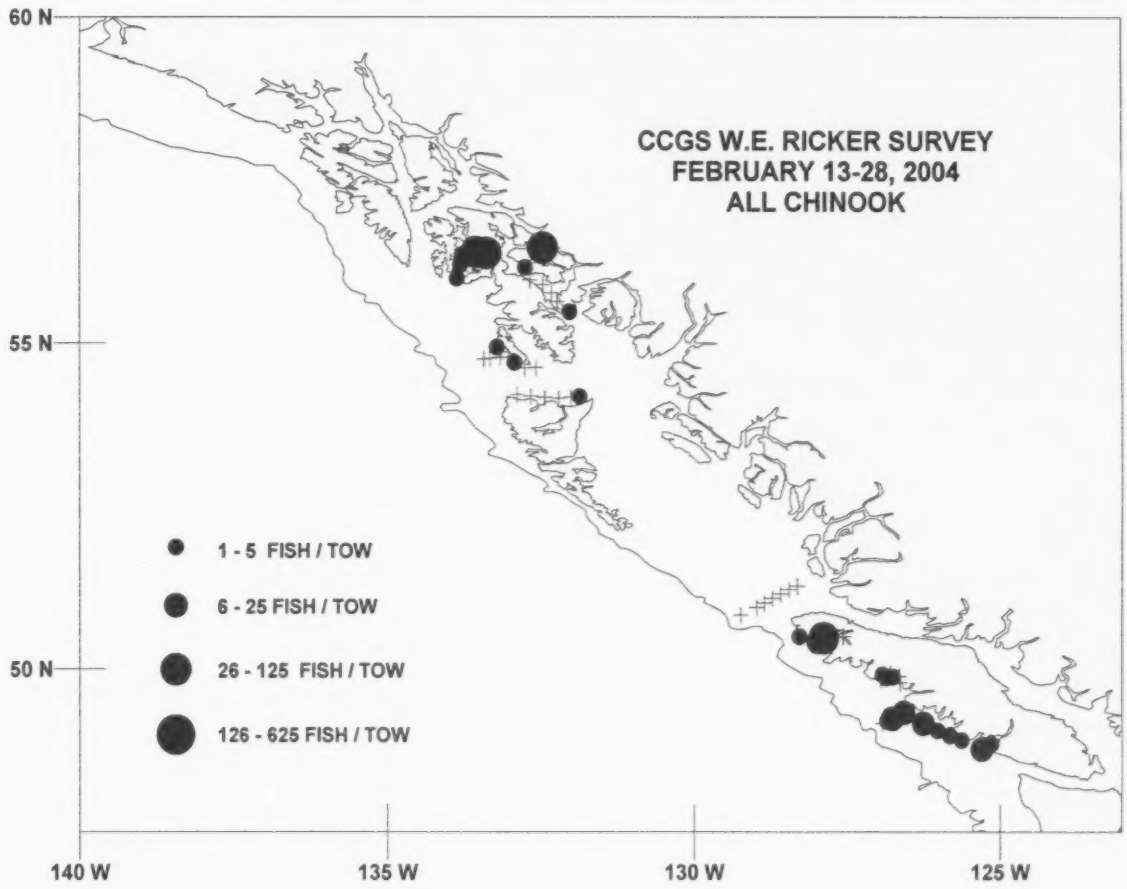

Figure 12. Distribution of catches of chinook from all size classes. Symbol size (•) is proportional to catch per tow; zero catches are shown by a (+).

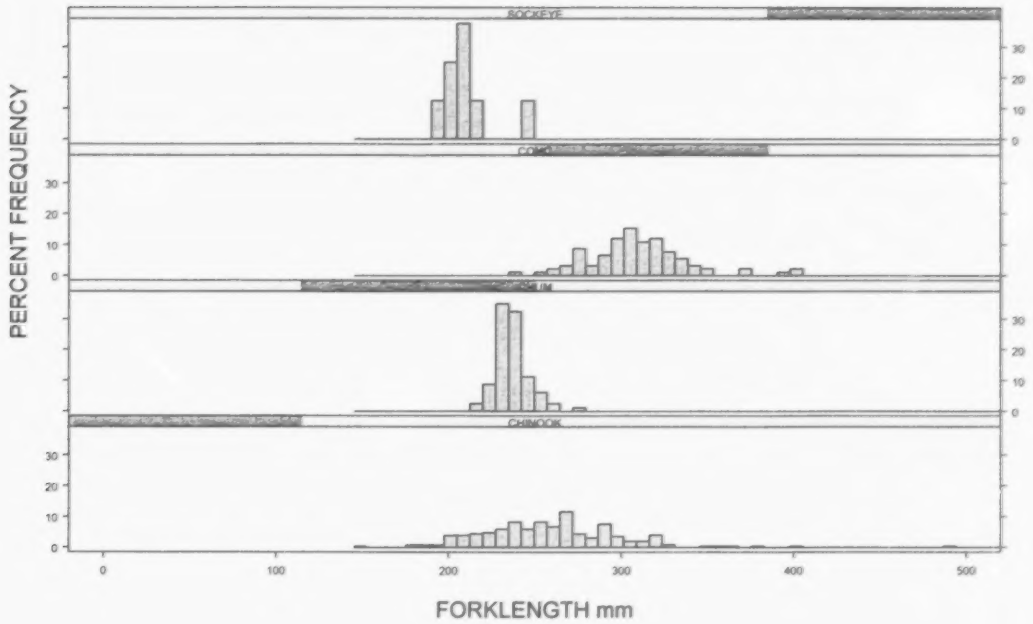

Figure 13. Size distribution (fork length; mm) of Pacific salmon caught on the CCGS W. E. Ricker survey to the Gulf of Alaska from February 13-28, 2004.

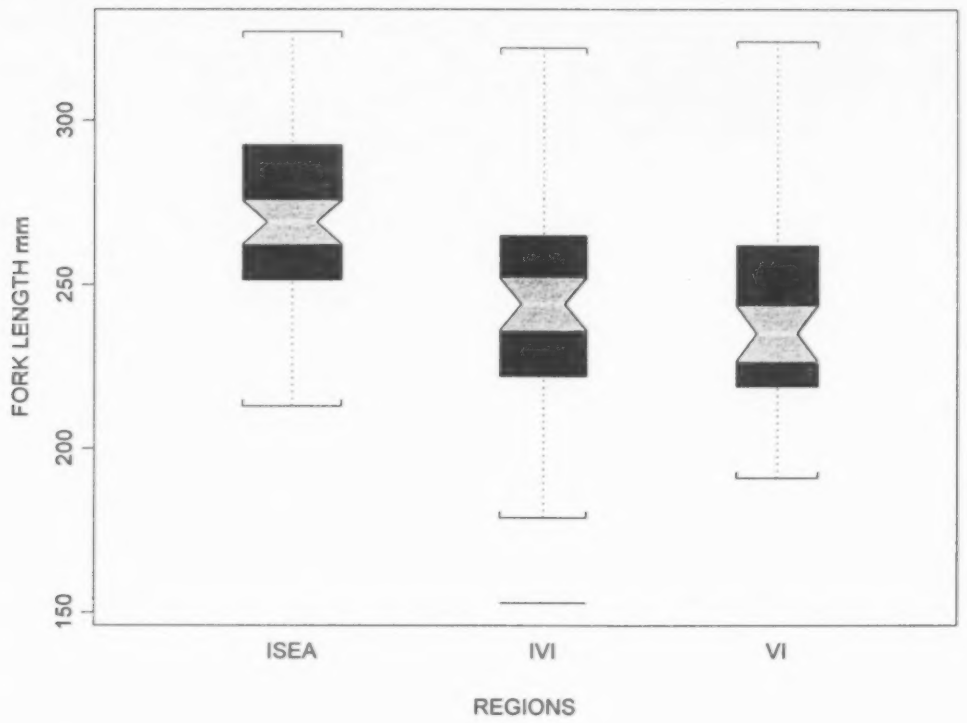

Figure 14. Boxplots of size distributions by region for juvenile chinook salmon on the CCGS W. E. Ricker survey to the Gulf of Alaska from February 13-28, 2004. Boxplots for each region are displayed along a latitudinal gradient that runs along the x-axis. The most northern region is on the left.